

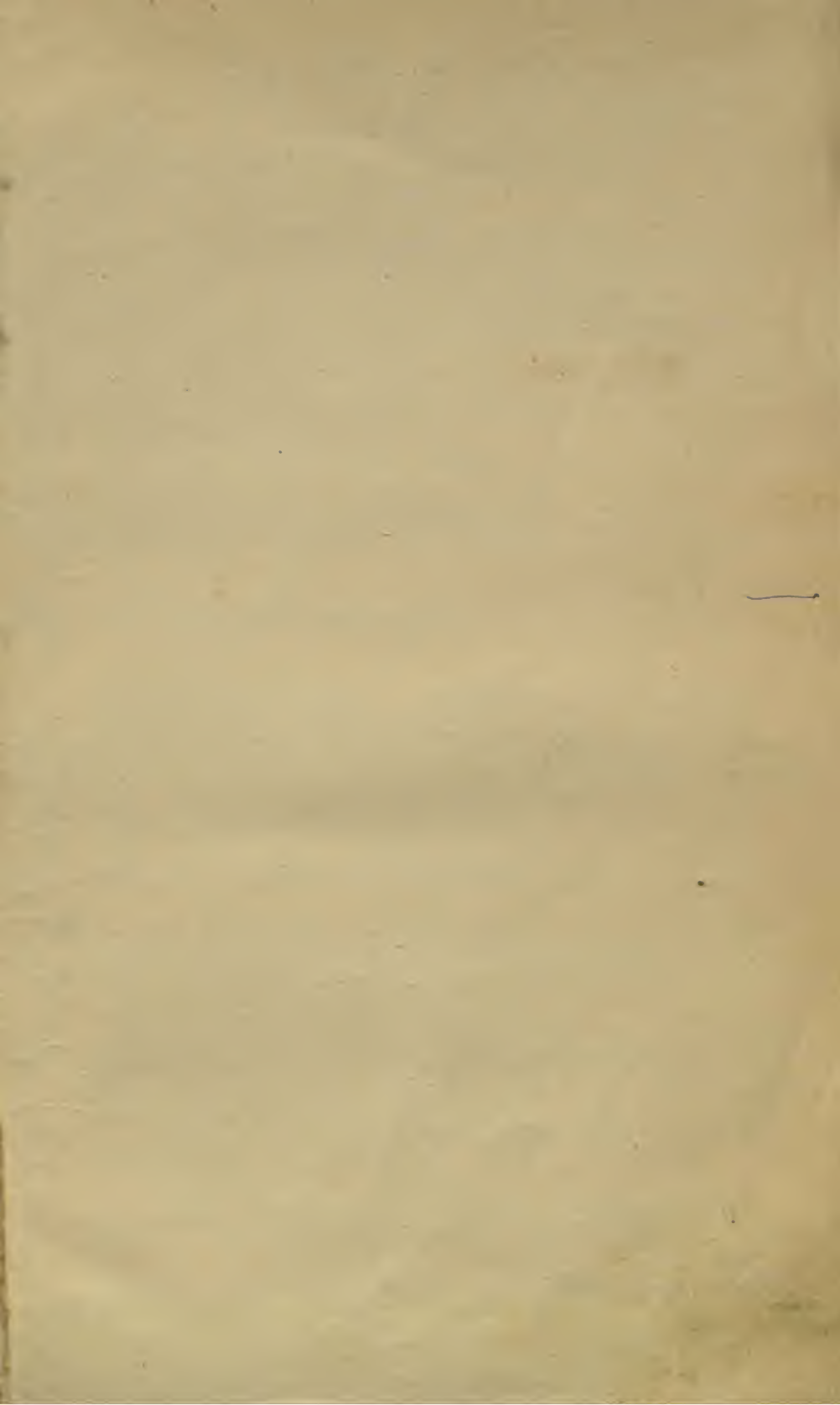
GOVERNMENT OF INDIA

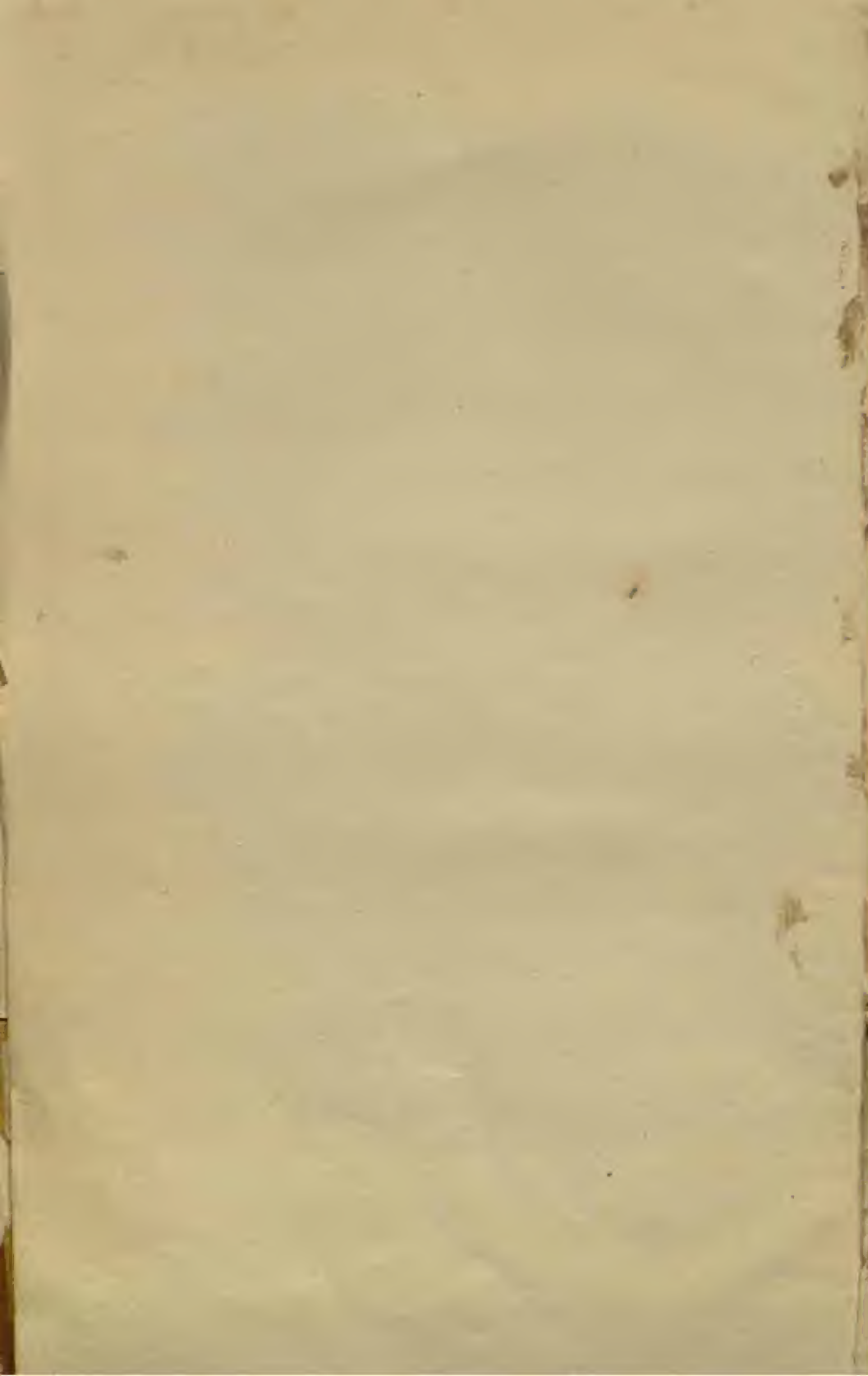
DEPARTMENT OF ARCHAEOLOGY

**CENTRAL ARCHAEOLOGICAL
LIBRARY**

CALL NO. **572.55414- Bis**

D.G.A. 79.





SANTALS
OF THE SANTAL PARGANAS

SANTALS OF THE SANTAL PARGANAS

5092

P. C. BISWAS

Head of the Department of Anthropology
University of Delhi

572.55414

Bis



Published by
BHARATIYA ADIMJATI SEVAK SANGH
KINGSWAY, DELHI-9.

1956

Price Rs. 10/-

SANTALS

OF THE SANTAL PARAGANAS

5782

All rights reserved

Reprinted by permission of the author

Printed by the author

CENTRAL ARCHAEOLOGICAL
LIBRARY, NEW DELHI

Acc. No. 50.92.

Date 22. 10. 56.

Call No. 5.7.2. 5541.4/Bis

OF THE SANTALS

OF THE SANTAL PARAGANAS

OF THE SANTALS

Printed by D.R. Sardana, at the Cambridge Printing Works,
Kashmere Gate, Delhi-6.

Received from M/s Rachna Book Centre, New Delhi on
17-10-86 - Rs. 10/-

IN MEMORY
OF
THE LATE
THAKKAR BAPA
WHO DEVOTED HIS LIFE
TO THE CAUSE OF
THE ADIVASIS OF INDIA

1-10-11

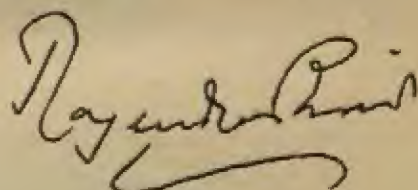
'A LETTER OF APPRECIATION FROM THE PRESIDENT OF INDIA'

Dear Dr. Biswas,

I have glanced through your book on Santals. It gives me a comprehensive view of the historical, cultural and modern conditions of the Santals in Bihar and adjoining areas. The information contained is extensive and varied and I am sure the book should be read with profit by all those who are interested in the subject.

Yours sincerely,

Rashtropati Bhavan,
New Delhi.
17th June, 1958.

A handwritten signature in dark ink, appearing to read 'Rajendra Prasad', with a long, sweeping horizontal flourish at the bottom.

THE UNIVERSITY OF CHICAGO PRESS

CHICAGO, ILL.

THE UNIVERSITY OF CHICAGO PRESS
PUBLISHED BY THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILL.
THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILL.

CHICAGO, ILL.

Handwritten signature

CONTENTS

	Page
Preface	i
Chapter I—Introduction	1
II—Material Culture of the Santal ...	13
III—The Santal Social Organization ...	51
IV—Religion	101
V—Anthropometric Analysis ...	158
VI—Culture Contact	214
Bibliography	225
Index	i



PREFACE

This book is an attempt to give a systematic account of the manners and customs, laws and government, religious beliefs, origin and ethnological affinities of the Santals of the Santal Parganas.

The author from 1931 to 1934 collected most of his data from twenty-two villages of the different Damin areas of the Santal Parganas. Later on in 1944 and 1945 he paid occasional visits to some villages outside Damin also. He is of the opinion that not much appreciable change had taken place within the following years of the Santals of the Santal Parganas.

In this book the author has not devoted a great deal to matters which have already been fully described in authoritative works such as folklore, folk songs, Santal disease, medicine and language.

The author gladly takes this opportunity to record his grateful thanks to many colleagues who have helped him with valued suggestions and criticisms. He is particularly indebted to the late Dr. Panchanan Mitra, former Head of the Department of Anthropology, Calcutta University, who helped him by giving valued suggestions and encouragement. To Mr. D. Rangiya and Mr. J.D. Mehra, thanks are due for the revision of the proof sheets. Many others have helped but the following names may be specially mentioned viz : Mr. I.P.S. Monga, Mr. S.C. Tiwari, Mr. A. Sharma, Mr. P.N. Gulati, Mr. K. Guha, Mr. H.L. Seth (Artist) and Mr. J.D. Mavalwala.

P.C.B.

SANTAL PARGANAS



N. B. Scale one inch = 13.5 Miles.

CHAPTER I

Introduction

The Santal Parganas is a district within Bhagalpur Division in Bihar, lying between $23^{\circ} 40'$ and $25^{\circ} 18'$ North latitude and between $86^{\circ} 28'$ and $87^{\circ} 57'$ East longitude. It is bounded on the north by the districts of Bhagalpur and Purnea, on the east by Malda, Murshidabad and Birbhum; on the south by Burdwan and Manbhum; and on the west by Hazaribagh, Monghyr and Bhagalpur. The principal range in the district is that of the Rajmahal Hills. They consist of a succession of hills, plateaus, valleys and ravines, the general elevation of which varies from 500 to 800 feet above sea level. A large portion of the range is included in the Daminikoh (the skirt of the hills). In the Santal parganas within the four subdivisions Dumka, Godda, Pakur and Rajmahal, the Santals live in largest numbers. They live in Damin areas, where previously one could not enter without the permission of the Commissioner. The Santal living on the very tract of the Aryan overflowing Northern India (in fact very near the sacred triangular spot between Benares, Rajgir and Gaya which witnessed the phenomenal Upanishadic speculation of the days of Janak and the rise of Jainism and Buddhism) could not but have been influenced by these and in their turn must have considerably left their mark on the folk culture of Northern India. If there is any culture which still carries the impress of the underlying philosophic speculation and order of thought that was wide spread in India prior to the rise of the Dravidian culture, it was very likely the belief and

social order of the Pre-Dravidian Santals. In the Pre-Aryan and Pre-Dravidian culture of India, the Santals rather than the Mundas or Hos of Chota Nagpur stand in the lime light. Similarly their contact with Dravidian culture which at one time was not at all confined to Southern India, is well proved from their neighbours, the Malers, who in language along with the Chota Nagpur Oraons speak a Dravidian tongue. Linguistically the Santals belong to what has been called the westernmost peripheral representatives of what is the Hawaiian type family in the Pacific.

At the Census of 1931 they numbered over two and a half million. In Santal Parganas the number was 7,54,804, the rest was distributed over the other parts of Bihar, Bengal, Orissa and Assam. If we study the strength of the population of the Santal during the thirty years (1901 to 1931) in the two provinces, Bihar and Bengal combined, it can be seen that they have increased from 18,69,074 to 25,08,789 which represents an increase of over 33 percent in a single generation.

As regards the origin of the Santals it is very difficult to say anything definite. There are no authentic written records of their own. From the traditions, customs, language and physical features of Santals one can conjecture to a certain extent about their origin. On the basis of the above items several theories have been put forward to account for their origin. Revd. Skrefsurd¹ has suggested that the Santals entered India from the North West and first settled in the Punjab and then made their way to their present habitat at Chota Nagpur. But Colonel Dalton and Sir William Hunter²,

1. Introduction to Grammar of Santali Language 1873.

2. Annals of Rural Bengal.

believed that the Santals came to the present abode from North East India.

Dr. A. Campbell¹ is of the opinion that the Santals, or rather the people of whom they are a portion, occupied the country on both sides of the Ganges, but more especially that in the north. Starting from the north-east, they gradually worked their way up the valley of the Ganges till we find them in the neighbourhood of Benares, with their headquarters near Mirzapur. Here the main body, which had kept to the northern bank of the river, crossed, and, heading southwards, came to the Vindhya hills. This obstruction deflected them to the left, and they at length found themselves on the tableland of Chota Nagpur, and he further writes "Efforts have been made to identify the countries, rivers, forts, etc. mentioned in the traditions of the Santals with those of similar names in Chota Nagpur. Localities have in many instances been found bearing traditional names, and the inference has been drawn that it was here that the traditions of the Santals took their rise, and that their institutions were formed. But only a slight knowledge of these traditions is necessary to show that they belong to a much more remote period than the location of the Santals in Chota Nagpur, and to countries separated from it by many hundreds of miles."

Objecting to the above theory Sir Herbert Risley² writes the following "A people whose only means of recording facts consists of tying knots in strings, and who have no bards to hand down a national epic by

1. The Traditional Migration of the Santal Tribe, Indian Antiquity pp. 103-4.

2. Tribes and Castes of Bengal Vol. II pp. 225-6.

oral tradition, can hardly be expected to preserve the memory of their past long enough or accurately enough for their accounts of it to possess any historical value. If, however, the legends of the Santals are regarded as an account of recent migrations, their general purport will be found to be fairly in accord with actual facts'. He further writes "The earliest settlements which Santal tradition speaks of, those in Ahiri Pipri and Chai Champa, lie on the north-western frontier of the tableland of Hazaribagh and in the direct line of advance of the numerous Hindu immigrants from Bihar. That the influx of Hindus has in fact driven the Santals eastward is beyond doubt, and the line which they are known to have followed in their retreat corresponds on the whole with that attributed to them in their tribal legends".

Rev. P.O. Boddington of the Scandinavian Mission in the Santal Parganas and well known for his works on the life and customs of the Santals believes that the Santals entered India from the North Eastern gate. He draws his conclusion from their customs, language and physical features. He points out that many of the customs as preserved, point to the east, even further than Assam. He also mentions from their language that the linguistic relatives of the Santals are to be found to the east, in Southern Burma and on the Malaya Peninsula. He tries to trace their origin from their somatological characters, and says that "the Dravidian type, although the prevalent one, is by no means the only one found. Several Aryan types are met with and a Mongoloid one is not very uncommon. Other types may be found, but are too few to be taken into account. All this proves mixture of blood at some

time or other. What I would especially draw attention to in this connection is the Mongoloid type and types resembling what is found in Assam, Burma and further on".

In summing up he writes "If we are to accept the tradition of the people, these either affirm or presuppose that since the time when the human race was split up into nations they have always been wandering in a more or less easterly direction—a direction which now-a-days also is followed by them in all their migrations. This would imply that they came into India from the north-west. I must confess that I personally was long of this opinion, and I have not given it up altogether, but I am more and more getting my eyes opened to the fact that the Santal and Munda peoples have their connections towards the East".

Santal Movements in Historical Periods:—From the above it appears that we are now not certain about their original home. From the ancient records available it appears that there is no doubt that the Santal began to settle in Chota Nagpur and its neighbouring areas during historic times. The earliest mention of them is recorded in an article of Sir John Shore entitled "Some Extraordinary Facts, Customs and Practices of the Hindus"¹. In this article Sir John designates them as "Soontars", who were residing in Ramgarh. The first mention of the Santals in the district of Santal Parganas occurs in Montgomery Martin's *Eastern India*². There are two references. In the first

1. *Asiatic researches* 1795.

2. *Buchanan Hamilton's manuscripts*.

it is written in the following words "it is only in Lakerdewani that some impure Taungtars have been permitted to work the cow, and the most violent opposition was at first made to such an atrocious innovation; but the obstinacy of the barbarians prevailed, chiefly, I believe, because they were thought powerful in witchcraft, and because disputes with such people were considered as dangerous". The second is "The tenants of Bihar in general transact their own business with the agents of the zamindars, and it is only among the rude tribe called Saungtar, and in the Bengalese parts of the district that a kind of chief tenant is employed to transact the whole affairs of the community." According to Hunter, "The Permanent Settlement for the land tax in 1790 resulted in a general extension of village, and the Santals were hired to rid the lowlands of the wild beasts which, since the great famine of 1769, had everywhere encroached upon the margin of cultivation. This circumstance was so noticeable as to find its way into the London papers, and from 1792 a new era in the history of the Santal dates."¹ Thus according to Hamilton the Santals came to Handwe and Belpalta between 1790 to 1810 from Birbhoom being oppressed by the Zamindars. Between 1815 to 1830 Sutherland and Ward noticed the Santals in the Dumka and Godda Damins. Mr. Dunbar, Collector of Bhagalpur shows that by 1836 no less than 427 villages had been established in Damin areas "inhabited by the Santals and Bhuiyas but chiefly by the former". The Santals entered this region and spread far afield without much opposition from the Paharias, (the Malers, the Mal-Paharias), and most of these Paharias slowly

1. Annals of Rural Bengal.

retired to the Rajmahal Hills. In 1851 Captain Sherwill found 83,265 Santals in Daminikoh alone.

Santal Rebellion (Hul) of 1855. Mr. Buchanan Hamilton has mentioned in his unpublished manuscript that "the Santals has settled in the Dumka sub-division by 1809 having come last from Birbhum in consequence of the annoyance which they have received from its Zamindars". In 1818 Mr. Sutherland found them engaged in clearing the jungles under the hills in Godda sub-division. Mr. Dunbar, Collector of Bhagalpur, mentioned that by 1836 about 427 villages had been established by the Santals in the Damin area.

These Santals of the Daminikoh in the year 1835 became rebellious. The chief cause of this rebellion was the oppression of the Mahajans, the Darogas and the corruption of the Amlas. These Mahajans gave the Santals money as a loan with high interest and one he had contracted a debt he had little chance of escape, because if his creditor sued him, the Santals could not produce any authentic record, whereas the creditor had his ledgers and day book. These Mahajans sometimes without going to court to realise his capital and interest, sent his agents to take away their cattle forcibly. The Santals bore this oppression thinking that it was useless for them to obtain redress against the wealthy Mahajans, besides that had not enough money to pay the Amlas and Pleaders in the Court. If they approached the Court and lodged a complaint against these Mahajans, they only got an order on the police to enquire and report, but the police generally sided with the Mahajans and submitted reports in their favour.

The Santals of the Damin complained that they got different treatment than their neighbours the Suria Paharias and the Mal Paharias, and that the Santals who were living outside the Damin areas, were better off. Inside Damin the Zamindars ousted their Santal tenants from the lands they had cleared, although these lands had been settled with them by the Zamindars on long leases at low rates, on condition that they would clear the jungles. But as cultivation extended, the non-Santals forced the Santals to till some of their lands and thus they gradually extended their holdings, and ultimately appropriated the best portion of the lands in the village by exacting mortgages in return of loans. Thus the Santals moved to other parts where they settled by clearing fresh jungles and establishing new villages. Again they were forced to leave the villages. When the Santals lodged complaints against the Mahajans in the court, no steps were taken by the executive (naibs, darogas etc.) as they were ready instruments in the hands of the Mahajans. The Santals who took loans from the Mahajan, could not pay in cash but worked out their debt by personal services, thus they became slaves in the hands of the creditor. The sons and daughters or his other nearest relations were also liable for this sort of service.

Due to all these oppressions the Santals were very much annoyed, and as a result of this in 1854 they attacked the houses of some Mahajans at night. The authorities caught them and treated them as dacoits. They were tried and convicted although they protested against it. After a year, again the same thing was repeated but this time the Government released them as it appeared that the crime was due to the oppression

of the Mahajans. Then in the month of July 1855 a revolt broke out among the Santals, under the leadership of four brothers, Sidu, Khanu, Chandu and Bhairal of the village of Bhagnadihi situated South of Burhait.

Sidu and Khanu proclaimed themselves lords of the place under the title of Subahs and appointed other subordinate officers. Having in this way raised a general expectation of some great event among their countrymen the leaders hoped that the Government would enquire into the matter and redress their wrongs. When that was not done they demanded that the Government should redress their wrongs, failing which they would be compelled to take the law into their own hands to put an end to the persecution. Getting no response from the Government, a general order went through the encampment to move down towards Calcutta. Accordingly on the 30th June 1855 at full moon, several thousand Santals set out. As long as the food which they had brought from their villages lasted, the march was orderly but with the end of their own stock of provisions, the necessity for plundering arose. On the seventh of July of the same year, having heard of the gathering with two brothers at their head, a police officer accompanied with some sepoy's went hurriedly to arrest them. After some discussion the police officer ordered his men to arrest them. Hearing the order of the Inspector the Santals were so enraged that they jumped upon him and bound him. Sidu their leader killed the Inspector with his own hand and the police left nine of their party dead in the Santal camp. This tactless procedure of the Inspector changed the whole trend of the Santal unrest and it took the form of rebellion, for at first they did not seem to have contemplated

armed opposition to the Government. Their main object was to march down to Calcutta in order to place the petition of their grievances before the Governor-General. In July 1857 real rebellion started and several villages were burnt and looted. They attacked the house of Raja of Ambar at Kadamtsair, near Pakur, and destroyed the Indigo factory and some railway works there. The Santal mob killed many English men including two English ladies.

The local authorities first took it as robbery, but at the end of July 1857 the Government finding it difficult to control the mob asked for more military help. Detachment after detachment poured in, native landlords supplied help to the troops on their march, and a special commissioner was appointed with extraordinary powers for the suppression of the rebellion.

All the troops were placed under the command of a Brigadier General but he had not got full and independent authority. An order was issued to him on the thirtieth of July stating that the military should not act independently of the civil power, but that the military operations should be entirely in the hands of the military commanders. The troops contacted the rebels at Mahespur and defeated them and their leaders, the four brothers, were wounded and several hundred Santals were killed. On the 24th July the troops took possession of Burhait, and Sidu the rebel ringleader was handed over to the troops by his own followers. Due to this military action quiet had been restored to some parts, but still there were a large number of Santals up in arms who took refuge in the jungle. After this an order was issued by the Government that those who would come in and submit within a week

would be pardoned with the exception of the leaders and those who had committed murder. The Santals took this offer as a confession of weakness and in the month of September again renewed their activity. By the end of the month of September the area from Deoghar to the South Western border of the district came in the hands of the Santals. The Santals showed great bravery and reckless courage in the struggle against the military. As long as their national drums continued to beat, the whole party would stand and allow themselves to be shot down.

The Santals showed great bravery in this struggle and they did not understand yielding. Once forty Santals refused to surrender and took shelter inside a mud house. The troops surrounded the mud house and fired at them but the Santals answered with their arrows. Then the sepoy made a big hole through the wall, and the Captain ordered them to surrender but they again shot a volley of arrows through the half opened door. The sepoy started firing through the hole and the Captain again asked them to surrender but they continued shooting arrows. Some of the Sepoys were wounded. At last when the discharge of arrows from the door slackened, the Captain went inside the room with a Sepoy. He found only one old man grievously wounded, standing erect among the dead bodies. The Sepoy who accompanied the Captain asked him to throw away the arms but instead he rushed upon him and killed him with his battle axe. The Government was then compelled to proclaim Martial Law. As soon as the order for martial law went forth, the things assumed a very different appearance. The Santal rebels had to surrender and peace prevailed.

The Governor understanding the mistake of his predecessors tried to appease the Santal by removing the genuine grievances. He made the Santal territory a separate district called Daminikoh, with four sub-districts, Dumka, Godda, Pakur and Rajmahal. The charge of these sub-districts were given to a Deputy Commissioner and four assistant Commissioners. The regular police was abolished and the duty of keeping peace and order and of arresting of criminals was vested in the hands of the parganait and the village headman.

In the social sphere also steps were taken to ameliorate the condition of the oppressed Santals. The money lenders were not permitted to extort their debts over and over again by recourse to trickery or otherwise. False weights and measures were corrected and cheating in this department was punished and the Santals could now sell their produce in the market without fear of being swindled. The abolition of serfdom and the new relationship between capital and labour were far reaching reforms, and the Santal could earn his living as a free worker on the Railway instead of being a slave of a powerful protector. Again, the beginning of tea plantations about this time gave a fresh impetus to profitable work and a higher economic level was achieved by the Santal, who further decided to migrate to the tea area, and on the expiry of the contract to return with a tidy some of money. Such a diverting of labour caused an easing in the struggle for existence among those who stayed at home and enabled the migrant to earn enough to establish himself securely for life.

Thus out of the rebellion came some lasting good and the Santals in the end benefited from it.

CHAPTER II

Material Culture of the Santal.

The Village : The Santal villages with their houses on both sides of the street are situated on the plains. These villages are not well fortified. In each village only one unpaved avenue can be found, the width of which is about twenty five to thirty feet and the length is equal to the length of the village. There are tall trees at intervals on both sides of the avenue which make the path shady. In a big village generally twenty to thirty houses can be seen and in a small village there are only ten to twelve houses. In each village a Majhistan is built, where Kulidrupe (Panchayat) takes place and taxes are collected by the head-man of the village, and there the Manjhi Haram (head-man) worships the Pilchu Haram and Pilchu Burhi. In almost every village a Jaherstan can be found which is nothing but a cluster of Sal (*Shorea robusta*) trees where the Santals worship their village deities. The water supply of the village is derived from a streamlet which runs nearby. The Santal villages are very neat and clean and all the villagers take particular care to keep it so, and scavenging is done by the pigs and dogs which help in keeping the village neat. As soon as the houses have all been erected and the village established, some trees such as mango, jack-fruit etc. are planted; the Santals have a belief that these trees bring prosperity. The Headman's house is generally built more or less in the centre of the village and close to the Majhistan. The villages are generally known by their place names as Sunderpahari, Chandna, etc.

The Santals observe certain omens before selecting the site for the village. Below are mentioned a few which are mainly based on what an old Santal guru known as 'Kolean guru' related to the late Rev. L. O. Skrefsurd about ninety years ago.

About half a dozen Santals go inside a forest with a leader to select a site for their village. If they see any of three kinds of quails (a genus of gallinaceous birds to which the domestic fowl belongs) flying over there they say :

"Some day in the future a village founded here will be deserted".

But if they see these birds hatching their eggs or if they come across a tiger on their way or see marks of its paws on the ground they say :

"Some day in the future a village founded here will thrive and become prosperous and we can stay here contentedly".

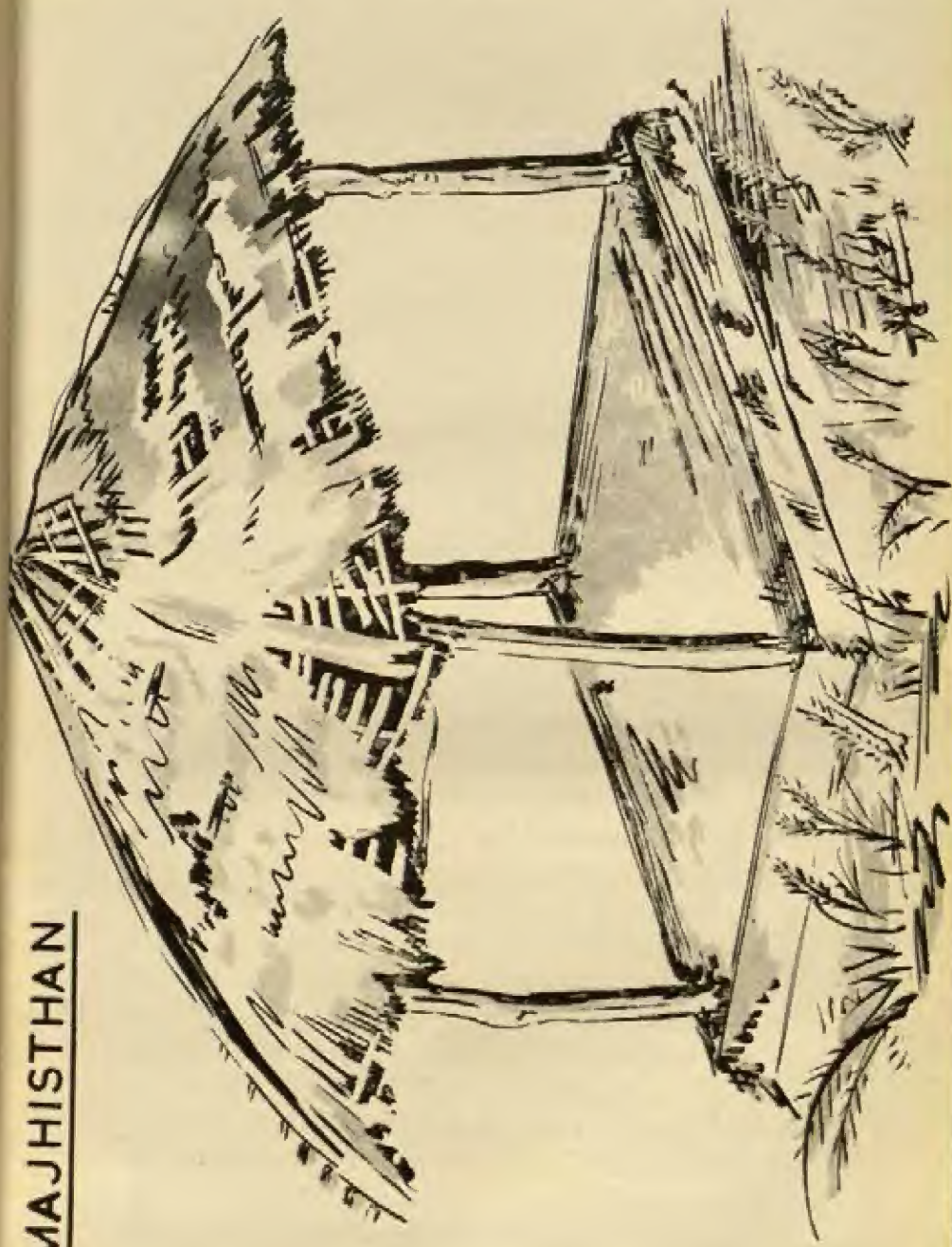
In selecting the site for the village, the Santals are very particular about the following things :—

The ground should not be damp and there should be enough good highland for fields and homestead. There should be enough land for cultivation and water should be readily available.

In a Santal village two things are very important, one is the Mahajhistan, the place made for the spirit of the original headman, and the other is the Jahers-than, the scared grove where the Santals worship the Bongas.

The Majhistan : The Majhistan or raised platform is an important place for the Santals. They build this place generally, in the centre of the village, near the

MAJHISTHAN



Manjhi Haram's (headman) house. On it taxes are collected by the Manjhi Haram and legal disputes are settled. There is no fixed size for the Majhisthan. It is found that the Santals, in different villages make Majhisthans of different dimensions. In a village there was a Majhisthan ten feet long, eight feet broad and two and half feet in height while in another was one five feet long, four feet broad and one foot high. It consists of a raised mud mound over which a neatly thatched roof is constructed. The roof is supported by five upright wooden posts in the four corners of the Majhisthan and one in the centre. At the base of the centre post is stuck a small stone or wooden lump (sometimes shaped as a human head) daubed with vermilion. From the roof an earthen pot is suspended containing water brought from the Jahirsthan for the spirits to drink and beside it hangs a peacock's head. The floor of the Majhisthan is plastered with mud and cowdung.

The Jahirsthan (Sacred Grove): The Jahirsthan is a place where religious ceremonies of the village are performed by the Santals. It is situated at the end of the village and it must be within the boundary of the village. A cluster of sal trees about twenty to twenty-five in number is always required. Among these trees three are essential, and at the foot of each of these three trees a stone is put representing the deities, Jaherera, Turukomonrako, Marang-Buru. The fourth one is an Ashan tree which grows near these three sal trees and at the foot of this tree a stone representing the deity Pargana-bonga is kept. The fifth and the last one is a Mowa tree, which stands a little apart, and at the foot of this tree, a stone is placed to represent

Gosainera, a female deity. This Mowa tree is known as the Lady of the Grove. But it was noticed in the Jahirsthan both in Dumka and Godda area, that at the base of several other Sal trees there were stones which represented the Pukri and other Bongas.

The House : Before constructing the house they test the site by tying a rooster on the site for five days, and if within these five days the cock loses its life they give up the place thinking it to be undesirable. If the rooster remains alive they begin the construction of the house after sacrificing a fowl to Marang Buru.

Before entering the new house the owner of the house brings a mug of water after bathing in a stream nearby and pours a little water in each room. In the room facing east the owner puts three cups of Sal leaves on the floor and pours "Handi" (rice beer) in those cups taking the name of Marang Buru and Pilchu Haram and utters the following words :—

"I have constructed the house by taking your names. See that every thing remains alright".

Mango and jackfruit trees are planted in the adjoining field in the belief that prosperity will come. During the house ceremony widows and divorced women cannot enter the house.

The house and its contents : The house of the Santals is not of varied design and the plan of the main structure is always the same. In some can be found a courtyard in the centre, and rooms on two sides and mud walls on the other two sides. An average house of the Santals measures 15 to 18 feet in the length and 10 to 12 feet in width.

In the Daminikoh area and outside this area of the Santal Parganas two types of houses can be seen.

One of which the Santals call 'bangla orak' i.e. gable house. It is rectangular in form and is generally about 14 to 15 feet in length and 9 to 10 feet in breadth. The roof of this type is two sided. The other type of house is called by them 'Katom orak' i.e. umbrella house. In this house the roof is four sided.

The most common type of house the Santals build is the gable house. In constructing this house nine big posts are required, which are either got from the plot where they construct the house or are purchased. These nine posts are sunk in the ground in three rows, each row consisting of three posts. The middle one they fix a little longer than those of the two sides. Horizontally on the posts of the three rows, three big heavy beams are placed. Three cross beams are then fixed on both sides. These cross beams are tied with the middle and side posts. Then a number of rafters are tied over the cross beams. A frame work of split-bamboo is then fixed over it. For roofing, they generally use paddy straw or a special type of grass. This they get in abundance in the forest, and it is stronger and more durable than paddy straw. On the sides of each house is a platform measuring two to two and a half feet in width and the length is equal to that of the room. The floor of the rooms and the platforms are made of beaten earth whereas the walls are made by placing branches between the post and plastering it with earth and cowdung, their thickness being about 18 inches. They apply a plaster of earth on the wall, and three feet from the floor, they smear a very dark grey wash which is prepared by mixing cowdung with straw ash. There is only one door in each room and no other

ventilation except a few holes high up on the wall. In front of the house the eaves of the roof are elongated which serves as a covered verandah. The floor of the house is a little raised above the ground, being filled up with earth. This is trampled down hard and made smooth with mud mixed with cowdung.

Every Santal house in which the head of the family lives has a 'Bhitar'. This is a part of a room partitioned by a low wall which runs out from the side wall some six to nine feet into the compartment. It is a kind of stall, and is sacred to the ancestors. Here food is kept for the ancestors and no stranger is permitted inside. The married daughter of the house, who in her girlhood was allowed entry is now not permitted inside, because she now belongs to another family and might cause religious pollution.

There is a separate shed for cattle. Within this shed in some houses special arrangement is made to keep pigs. In one corner of the cattle-shed two mud-walls about three feet in height are built, to form a small rectangular sty. Over it bamboo sticks and branches of trees are placed, so that pigs cannot escape by jumping. A hole is made in one of the walls and bamboo sticks are placed there in such a way that by raising these sticks the pigs can easily come out and enter. But in some villages in the Godda Damin are found the pig-sheds built outside the house. In this case the walls of about 5 feet and the roof are made of thatch.

Inside the house on the verandah the "Dhenk" (rice-husker) is fixed and a mill-stone is kept. Except during cold season, when the inside is warm, the Santals generally stay outside on the courtyard both day

and night. As a rule they cook their food outside, but always have a fire-place inside. During the cold season they generally cook their food inside, the result being that the house specially at night, is suffocatingly full of smoke and every thing becomes covered with soot. This does not, however, seem to affect the Santals much. In the bed-room they store their rice and all other belongings, and the fowls are kept too in that room at night. It is, of course, not possible to keep such a house clean, even if they tried to do so.

Agriculture :—The Santals before becoming agriculturists were probably in the hunting stage. Still, nothing pleases them so much as to be out for hunting, they even now observe the "Dehiri hunting", which is an annual hunt. During the time of the annual hunt the Dehiri priest performs certain ceremonies to propitiate "Sin Bonga" to avert calamity during hunting. All these suggest that prior to becoming agriculturists the Santals were in the hunting stage. At present the Santals are typical agriculturists. There is no authentic record when the Santal first started tilling the soil. Rev. Bodding in his memoir, "How the Santals live" has mentioned their first attempt at cultivation in the following words :—

"It is just possible that one of their first attempts to get something out of the soil may have been something like what is now called 'kurau', a mode of cultivation that is said to have been used also by Santals in former years, but is not practised by them at the present time, so far as is known. It is, however, still kept up by the Paharias living on the hills of the Santal country. A piece of jungle is cut down high up

on a steep hill-side; when the wood of the felled trees is dry, generally toward the end of the hot season, it is burned. In this way the ground is cleared, and when the rains set in, the seed is sown without any ploughing. The present-day Paharias make small holes with a crow-bar and drop the seed into the holes, especially of bajra, *Sorghum vulgare* Pers., of maize and of a few other kinds. This is all, except that they may pluck away weeds. It is said that when the Santals in former times followed a similar mode of cultivation they simply sowed the seed (especially bajra) at the top of the cleared hill-side, the spreading being left to the water of the rains flowing down; in some cases, a branch of a thorn-tree (*Zizyphus Jujuba* Lam.) is said to have been pressed into a flat shape and dragged over the ground to spread the seed".

From early morning till evening they work in the field. Rice is their staple food; in it wealth is reckoned and from it they obtain their drink. Both sexes work in the field. Every man tries to secure agricultural fields near his house and also near a streamlet flowing. They cultivate their soil and also gather natural produce when their crops do not grow due to want of rain or for some other reasons. The Santals prepare two kinds of rice field. One type is adjoining their houses, the other is at some distance away from their houses, which is on high land.

Preparation of ricefield :—After selecting the site, the Santals clear the field of jungle and vegetation. Then they surround it with ridges but if the land is slopy then they make the ridge only on the lower side. With the hoe and a heavy leveller (*karha*) they

level the field as far as possible. With the help of plough the Santals plough the rice field several times before transplanting the rice seedlings.

Transplantation :—In a rice field, during the months of May and June after making the earth loose they bring seeds in a basket and scatter them over the loose earth with the hand. Then the earth is again pressed down with the leveller and the seeds are thus buried in. When the seedlings grow to a certain height they are then pulled out and transplanted two or three together in the prepared field. They transplant the seedlings about one foot apart and in rows. They have three kinds of transplanted paddy. The earliest varieties ripen in the month of September. The second one, which they transplant in high land, ripens in the month of October. The third variety becomes ripe between November and December and is transplanted in low land. In the Santal Paraganas the Santals have got another kind of crop which is done simply by sowing the paddy seeds in the prepared rice fields and which ripen in the month of August. The transplanting is generally done by the Santal women.

Threshing :—When the crops grow properly and become ripe they cut them with sickle and carry them to a place which they clean with earth and cowdung. There in the centre they keep one big stone, on which they strike the rice saplings. Sometimes they use bullocks for threshing. A few bullocks, tied in a line, walk round and round on the spreading straw. With the above processes they separate the paddy from the stalk. Then with the winnowing fan they clean the paddy separating them from other impurities.

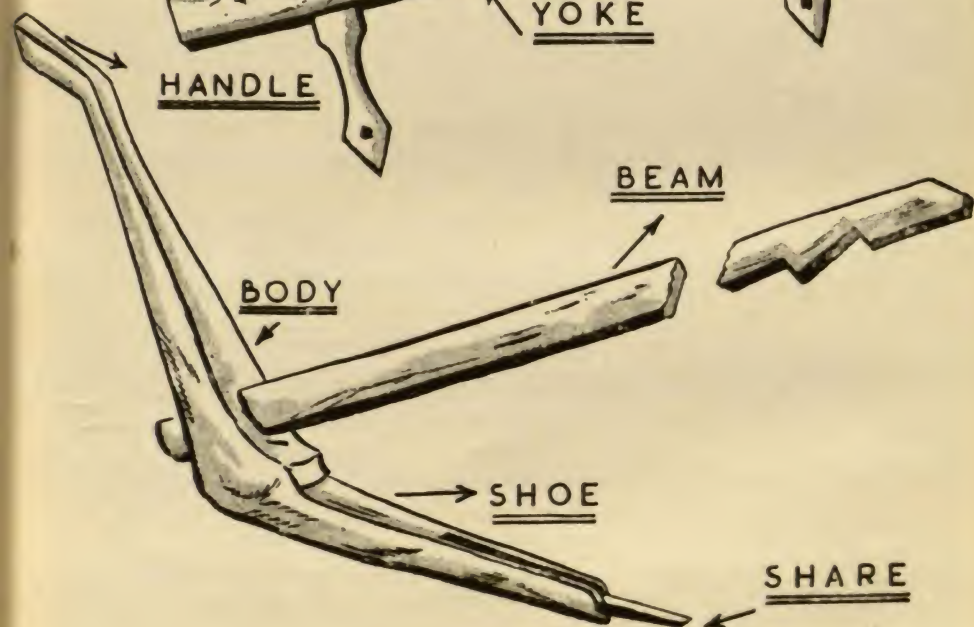
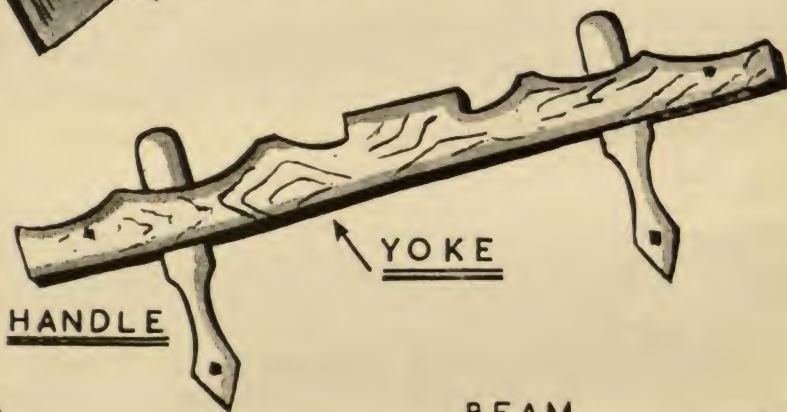
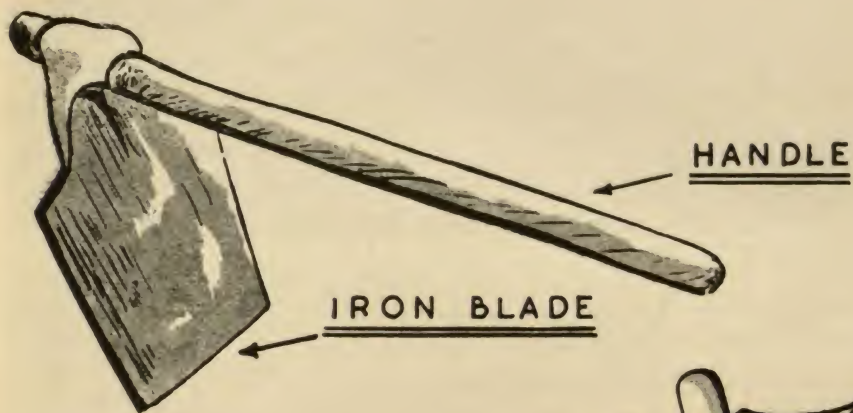
Before husking, the Santals treat the paddy in the following ways. First they soak the paddy in water by keeping in an earthen vessel for several hours, then they boil the soaked paddy. After boiling they spread the paddy on the courtyard for drying. They do not keep the paddy long in the sun because too much dried paddy will be brittle and during the time of husking the rice will break into pieces. After drying they store the paddy in baskets which they prepare with the strands of straw. Sometime they do it not by boiling but only drying in the sun. The paddy treated thus is husked either with a "*dhenki*" (husking machine) or with the pestle and mortar. To get clean rice the Santals husk the paddy more than once. Then with the winnowing fan they remove the husk separated from the grain.

AGRICULTURAL IMPLEMENTS

Plough :—The Santals who live near the Bengal border or in low lands use generally the same type of plough which is used in Bengal, but the plough which is commonly used by the Santals is somewhat different from the Bengal plough.

The Santal plough consists of mainly, three parts, (a) the plough proper (*nahel*), (b) the plough beam (*isi*), (c) the yoke (*arar*).

The plough proper is made of a single piece of wood which is slightly curved forming an angle generally of 130° at its middle part where the body and the shoe meet each other. The handle (*Karmba*) which is four to six inches long and roughly circular in cross-section is not a separate piece of wood but simply a projected outward piece coming out from the body.



The body is narrower at the top (*nahel bohok*) from where the handle is projected outside and then it gradually becomes thick and ends in the shoe. The middle part of the body is called *nahel koram* and the curved part where the body and the shoe meet is called *nahel deki*. The length of the body is about twenty to twenty four inches. At the lower part of the *nahel koram* and just above the *nahel deki* a rectangular hole is cut to receive the plough-beam. The shoe is thick, about 18" long and at the thickest part of it is about 8" in breadth. The shoe gradually tapers towards the front point which is called *nahel toda*. The under or back surface of the shoe is flat but the upper surface tapers towards the middle where a prominent ridge is formed. The cross-section of this part is roughly triangular. In the middle of the front top of the shoe a groove (*pal orak*) is made to set the ploughshare. The ploughshare (*pal*) is made of a long, narrow and flat piece of iron which is inserted into the groove and fixed by an iron staple. It is about 16" to 20" in length and 1" in breadth and 0.4" in thickness. The plough-beam which is inserted into the rectangular hole of the body is made of a long, flat solid wood and is called *isi* or *horisi*. The beam has got three notches on its underside where it is to be tied with the yoke, but in some cases it has got only two notches and sometimes having none. The length of the beam is about five feet and roughly rectangular in cross-section. The yoke (*arar*) is made of a solid wood with two long wooden pegs (each is about 17" to 18" long) inserted through two holes bored near the two ends of the yoke. These pegs are used to keep the bullocks in proper position when the latter are yoked. The upper surface

of the yoke is carved into steps which facilitates tying the yoke with the beam by means of a twisted leather thong (mangle). A man from behind drives the bullocks and regulates the pressure of the plough-share on the soil by holding the handle and the soil is furrowed.

Leveller (karha and raksa) :—The leveller is used to level the field and to press the soil. A detailed description of it is given by Rev. Boddington in his memoir, "How the Santals live", which is as follows :—

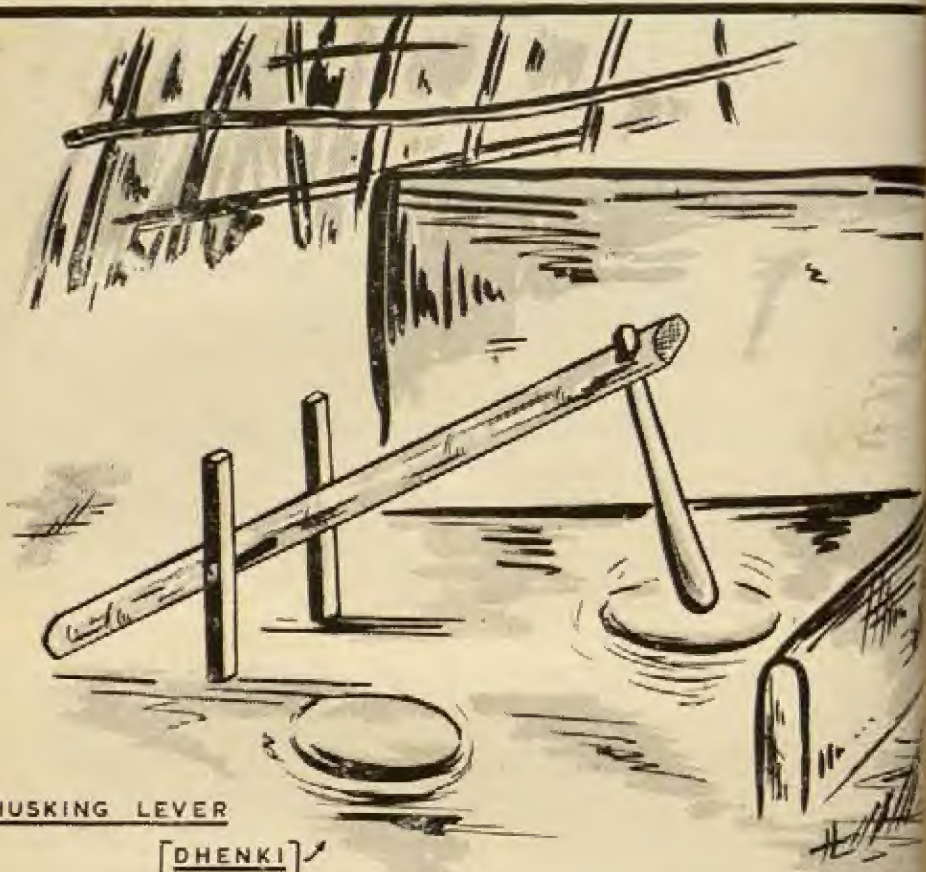
"The karha is a piece of wood, some 1.5 m. (more or less) long, some 0.3 to 0.4 m. broad and some 10 cm. thick at the top side, and gradually sloping down to a broad edge. As they have no saws, the Santals (who make all such things themselves) fashion the karha with axe and adze. It is made of some strong and heavy wood (Sal, Mahua, etc.). In the middle of the top side a handle (the karha karmba) is fixed in a hole cut for the purpose. It is a straight piece of wood. The size of the karha varies according to needs; the smaller one is called dangra karha, bullock-leveller, and the larger one kada karha, buffalo-leveller. At each end there is ordinarily what is called nakic, comb, having one, two or three 'teeth', called sula, on which an iron ring called *halka*, is slipped down, when the karha is to be used. This form is called *nakic karha*. In one form of karha is put through the hole and kept in position by a piece of wood inserted, to prevent the *halka* from slipping through. This form is called *rotok karha*, cut through leveller (from *rok*, to cut). There is a third form called *rotok nakic karha*; this is so large that it would not be convenient to have the *nakic* at the two

ends. Two large holes are therefore cut in the body of the *karha*, equidistant from each end; on the inner side of each hole a *sula*, 'tooth', is made to slip the *halka* in. The *karha* is, as stated, dragged by a pair of bullocks or buffaloes. To join the *karha* to the yoke a *karha* dandit, a leveller-beam, is used, corresponding to the ploughbeam (*isi*). It is a piece of wood, frequently bamboo, about 2 m. long, or a little more. It is split in two at the *karha* end, with a hole at each end. Into each hole an iron hook, to which a *halka* is attached, is fixed. There are naturally two *halkas*. At the yoke end the *dandit* is whole, where the split commences (about 0.7 to 1 m. down) a cord is tied to prevent the beam from splitting higher up. In the case of a bamboo *dandit* the *uti* or joint serves the same purpose as cord. When in use the man in charge puts the *karha* down into the earth that is to be removed, as one would put in a spade; when the bullocks drag the *karha* along with the earth, the man holds the handle firmly to prevent the *karha* from turning over. When he has reached the spot where the earth is to be deposited, he lets go the handle, and then the *karha* automatically turns over. The earth is left lying there and the bullocks drag the *karha* back to the place where they started. On a new *karha* with three 'teeth', the *halka* is placed on the lower *sula*; when the *karha* becomes worn, the *halka* is put on the middle or the top *sula*. Some well-to-do Santals have instead of the *dandit* two iron chains with a *halka* at the *karha* ends. Loose earth is naturally necessary for the operation. The use of a *karha* is therefore practically restricted to the autumn or just after rain in the dry season. Ploughing is often resorted to preparatory to using the *karha*."

"The *raksa* resembles the *karha*. It is a piece of wood about two to three mm. long and 15 to 20 cm. broad, slightly thinner than a *karha*. The *raksa* is slightly curved and has an edge. It has two holes cut equidistant from the centre for the *halka*, and has a handle (*raksa karmba*) fixed in the middle. It resembles the *rotok* and is worked very much like *karha*. It is used only for levelling rice-fields just before the planting, and as it is used in watery mud, there is no need for the same strength as in the *karha*. Only few men in a village have a *raksa*. They willingly lend it to those who need such an implement."

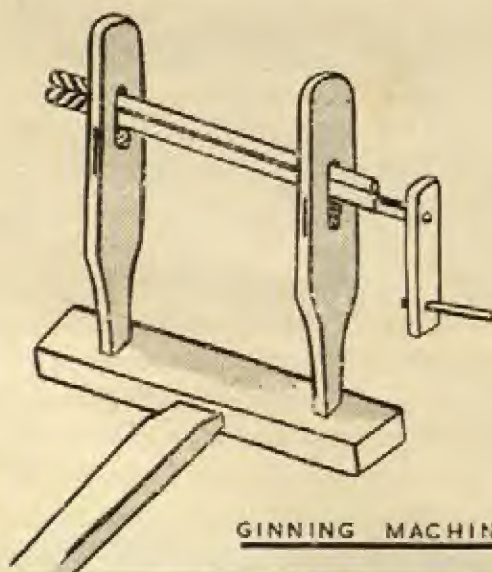
Hoe (Kudi):—The Santal *kudi* is an ordinary type of hoe which is used in Bengal and in some other parts of India. The implement consists of two parts—one is wooden handle and other is iron blade. The handle is about 2'-6" long, roughly circular in cross-section about 2" in diameter and slightly thicker at one end where it is to be inserted into the socket of the blade. The blade is made of a flat sheet of iron. It consists of a body which is more or less rectangular in shape, twelve inches long and eight inches broad. The side edges of the body are slightly concave in outline. The broad projected rear portions of the body form the shoulders and from the middle of this side the neck rises. The neck ends with a socket in which the wooden handle is inserted. The Santals use this for digging earth and also with this they make and repair ridges of the rice fields.

Mallet (Clod Breaker)—It is a wooden hammer. It consists of two parts, wooden handle and a cylindrical wooden head which acts as a hammer. The handle is



HUSKING LEVER

[DHENKI]



GINNING MACHINE



MORTAR AND
PESTLE

short about three feet in length and one inch in diameter, which is inserted in a perforated hole of the cylindrical hammer and a little of the handle comes out of the hammer, where a wooden clip is fitted so that the handle may not come out of the hammer. It is generally used for breaking big clods of earth.

Mortar and Pestle:— The mortar is made from a hard log of wood. One side of it is scooped out to form a deep cup-like pit having a round bottom. The basal portion is a solid block of wood with a flat end which looks like the stand of the mortar. There is a constriction outside between the hollow portion and solid stand.

The pestle is made of a heavy, long, solid, cylindrical, wooden rod with a constriction at the middle which serves as the grip.

Husking lever (dhenki):— The implement consists of a horizontal lever and a short heavy pestle. The lever is made out of a long, heavy and solid wood which is about 6-feet long and roughly rectangular in cross-section. The anterior end of the lever is somewhat conical and near to this on its under surface a pestle made of a separate piece of wood is vertically fixed. The pestle is narrow, cylindrical in shape and about $2\frac{1}{2}$ feet long. A wooden mortar is placed in the earth in such a way that the pestle falls vertically in that when the implement is in action. The posterior part of the lever is comparatively thinner and lighter than the anterior one. A hole which is perforated throughout the breadth of the lever is present at about a third of its length from the anterior end and a wooden bar is inserted into it. Two vertical poles with deep

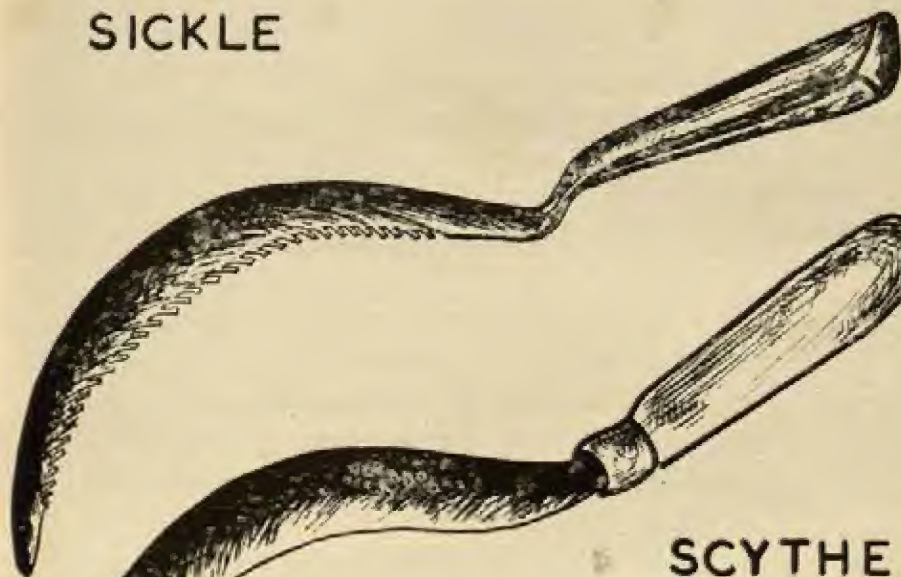
notches, one in each, at its upper end are fixed into the ground on the either side of the lever. Both ends of the wooden bar rest on these notches. The whole arrangement is such that the pestle is raised along with the head of the lever by the pressure of the foot and falls on the grain by its own weight when the foot is removed.

Scythe:— The implement consists of a wooden handle and an iron blade. The wooden handle is solid, cylindrical in shape and more or less uniform in diameter. At one end it becomes suddenly narrower to provide the insertion of the iron ferrule.

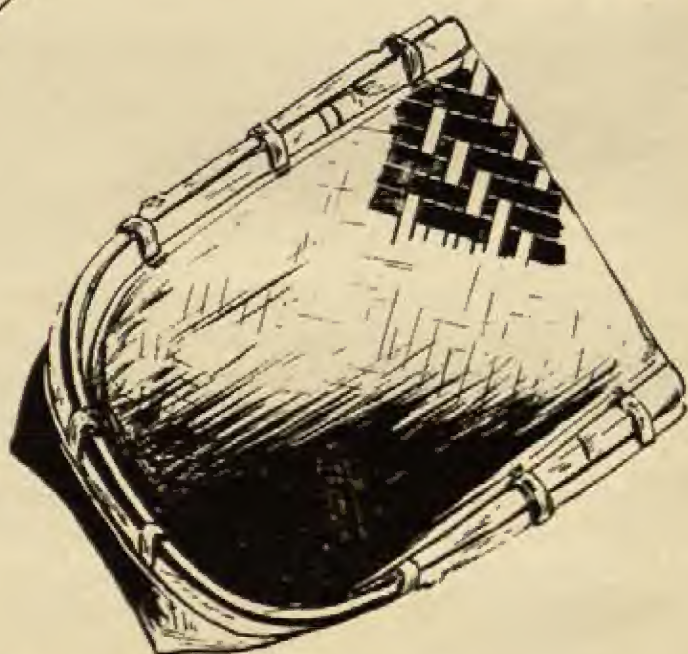
The iron blade is made from a single piece of iron. It is crescentic in shape with the outer side convex and a concave sharp inner edge meant for cutting. The blade ends in a long tang which is introduced into the narrow end of the handle and strengthened by an iron ferrule which protects the handle from the splitting at the time of insertion of the tang of the blade. The total length is 13 inches (5 inches handle and 8 inches blade) and the maximum breadth of the blade is about 1 inch.

Sickle:— The implement is entirely made of iron. It consists of a blade and a handle made from the same piece of iron. The blade is curved and crescentic in shape. The anterior end of the blade is pointed. The concave edge of the blade is serrated obliquely and these teeth are directed inward. The basal portion of the blade ends in a hollow cylindrical handle. The portion of the handle near the blade is narrow and it gradually becomes broad at the free end.

SICKLE



SCYTHE



WINNOWING FAN

HUNTING

Hunting :—In hunting the Santals are particularly expert. Nothing pleases them so much as to be out after game with bows and arrows. As soon as they come to know that a party is out for hunting they give up their work and join the party. Hunting was one of the earliest methods of the Santals for the search of food. As except the reserved forests, the real forests have mostly disappeared, so game which they get by hunting is extremely poor. Consequently they are now compelled to adopt agriculture as their main source for collecting food. Still they celebrate the annual hunting (Dehri hunting) excursion of a magico-religious nature. The Dehri hunting, which is the most important hunting of the Santals, takes place once a year in the month of Falgun (February and March). Dehri, their hunting priest carries a big branch of a Sal-tree (*shorea robusta*) with leaves and goes to the market, where people seeing him understand the purpose of his coming. As each leaf represents a day so they count them all and go out for hunting just after the number of days as indicated by the leaves of the branch. In this hunting expedition people of distant villages take part. The Dehri is responsible for the hunt, i. e. (all goes well and no mishap occurs). By divination he finds out as to who are threatened by any danger during the hunt, and advises them to turn back but they generally make him sacrifice fowls for them to Sin-Bonga to avert the impending calamity. He performs some ceremony and offers sacrifices to bongas

of the forest where the hunt is to be held, to ensure success and safety. After performance of the ceremony the whole party enters the forest with bows and arrows, Pellet bows (Gorkhas), Slings (Gaduar), Tangha (Kopi), battle axes, dogs and Tamuka (drums) and Sakuas (Blowpipe made of buffalo horn) which they beat and blow furiously all through the hunt.

In the forest they stand side by side in a long line surrounding an area. Some remain ready with their weapons behind the big trees, the drums and blowpipes of horn they beat and blow furiously. The men nearest to the game shoot their arrows at them; when the animals being frightened run hither and thither, men shoot arrows, sling stones and tanghas at them. If the game elude the arrows and other weapons shot or hurled at them, the baffled hunts-men shout out and let their dogs run after them. The men, who stand in line, then entangle the game and the hunters who followed the game come up and kill them. Once when I was at Bokrabandh and Katahaldih I saw the Santal process of catching hares and ichneuman. The Santals barricade a meadow, which is just by the side of a forest, with branches of trees and bamboos, only keeping open the side which is towards the forest. They keep an opening on one side where they fix a trap. They drive the hares from the jungle towards the place which is surrounded by the branches. The hares run towards the trap and fall into it. They kill ichneuman in the following way. The inchneuman remains under the ground and some dig holes, while others remain ready with Tanghis. As soon as it comes out they strike or throw Tanghis

at it. They kill any animal which they see before them during the time of hunting. After the hunt the slain animals are dressed and the meat is divided among themselves in the following way. The man, who first hits an animal, has a right over it. He has to distribute a certain part to others who participate. The rest has to be distributed among the men of his own village, keeping a certain part for himself. This hunting lasts not more than two days. They kill birds with pellet bows or with bolts. Besides this Dehri hunting there are other hunting expeditions in which the people of one village go to hunt whenever they like. In Sakrat people of each village go for hunt, on the last day of the month of Poush (January) generally after their Badna festival.

HUNTING IMPLEMENTS:—

1. **Arrow** :—Santal arrow consists of two parts—the hand and the shaft. The head is made of iron and is pyramidal in shape. It is broader at the base and gradually tapers towards the sharp pointed end. The basal region of the head ends in a tang which is inserted into the shaft and tied tightly by means of cocoon strips. The shaft is made of a long, cylindrical, narrow bamboo piece. At the butt end of the shaft two feathers are tied with cocoon strips. These feathers keep the balance of the arrow at the time of flight. A notch is made by cutting a little portion from one side of the posterior part of the butt end for placing it on the bow string.

Before operation, sometimes, the arrow head is poisoned to inflict a fatal wound. The Santals generally practise 'Mediterranean method' for releasing the arrow

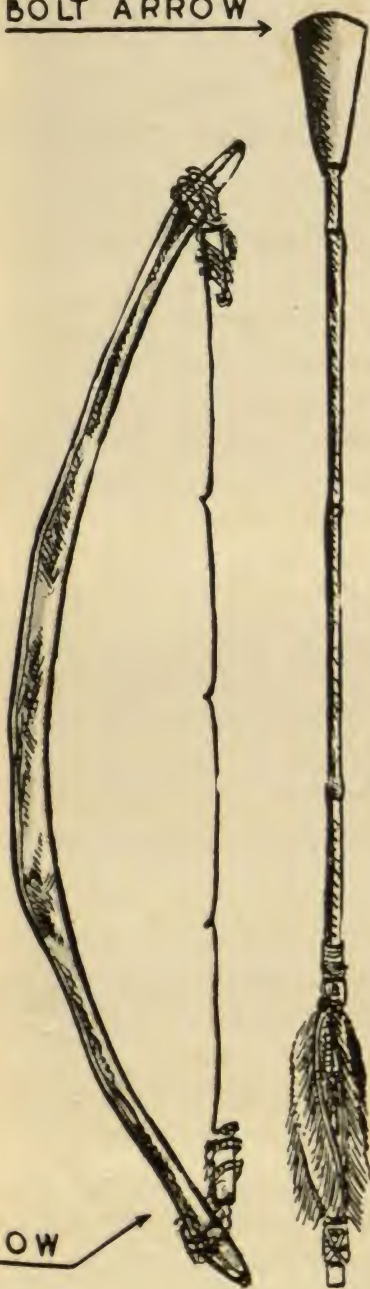
from the bow, i.e., the butt end of the arrow is held lightly between the fore and the middle fingers and the thumb is not used.

2. Bolt Arrow:—The bolt arrow, like an ordinary arrow, consists of two parts—the head and the shaft. The head is made of a small, solid piece of wood which is broader and flattened at the upper end and gradually becomes narrower towards the base. The cross-section of this part is roughly circular. At the base of the head a hole is made to receive the shaft which is a long, smooth and slender piece of reed. Two feathers are tied by means of cocoon strips on either side of the butt or free end of the shaft. A notch is made by cutting a little portion from one side of the posterior part of the butt end of the shaft. The other end of the shaft is inserted and fixed tightly into the hole of the head. After being released from the bow it will stupefy the birds in the air with its blow.

3. Plain Bow:—The Santal bow consists of a stave and a string. The stave is made of a long, curved bamboo split. The belly which is the surface facing the archer when drawing the bow is concave where as the back which is remote from the archer is convex. The middle portion of the stave is somewhat broad which serves as the "grip", but then it gradually becomes narrower towards the ends or horns. There are two stops cut from the solid ends of the stave to prevent the string from slipping. The string which is fastened to the horns of the stave by means of a small loop is made of plaited bark fibre.

4. Pellet Bow:—The Pellet bow, like the plain bow, has a stave which is made of a long, curved bamboo split. The

BOLT ARROW →



← PELLET BOW

BOW →

← ARROW

middle portion of the belly of the stave is more or less flat, and it is tied with the stave by means of cords. There are two strings running parallel to each other and they are tied at the notches of both ends of the stave. Strings are made of braided fibre. A small piece of bamboo is tied at right angles to the stave and it is in between the two strings near the tied end. This bamboo piece is to keep the pouch stretched. Near the middle of the bow strings there are a number of small cords tied parallel to each other forming a pouch like structure. This bow is adapted specially for pellets of stone or hard clay balls and not for arrows.

5. Sling :- The sling, among the Santals, is a common appliance for discharging stone pellets or hard clay particles. Bark fibres are made into a braided rope and of this rope the sling is made. A pouch is made by means of two knots at a little distance from one another, and from the knots two ends of the rope stick out. One end is slightly longer than the other. This longer end has a small loop at its foremost part for the insertion of the finger of the operator. A stone is placed in the pouch. Inserting the finger into the loop and at the same time holding the other end of the rope it is whirled round, and when it is in motion the end which has no loop is let loose in the direction at which the pellet is aimed. The pellet after being released from the sling goes violently towards the bird and stupefies it.

6. Battle Axe :- The implement consists of an iron blade and a wooden handle. The handle is made of a long, solid, cylindrical piece of wood. It has a pointed end where the blade is to be fixed. The

blade is a flat piece of iron and looks like the 'expanded wing of a flying bird'. The cutting edge is concave in the middle and it is sharp. The blade, away from the cutting edge, becomes thicker and narrower and forms a narrow neck ending in a socket to receive the handle. The handle is inserted through the socket of the blade in such a way that the cutting edge of the blade remains parallel to it. It is generally used for hunting purpose.

Fishing :- The Santals are not so interested in fishing as in hunting. Want of interest in catching fish is due to the scarcity of fishes in the streams. The following are a few methods by which they catch fish :-

The Santals make a weir with a platform at one end and the fish in their frantic efforts to go down stream, jump into this and are caught.

The Santals put bamboos cross-wise in a stream and keep a small opening, in front of which they fix a trap of wicker work which is made either of thin bamboo strips or of twigs. It is cylindrical in shape, and the size varies from two feet to two and a half feet. The mouth is broad and is furnished with a conical valve of very thin bamboo spikes. The other end is tightly closed. The fish passing through that small opening fall into the trap. The trap is prepared in such a way that once the fish enters it cannot come out. The Santali name for this trap is 'torodan'.

They also catch fish by fishing-net, which is of various types. The most common type is known as 'Hunda Jal', in which the net is fixed to three pieces of thick bamboo strips which form a triangular frame.

One of the strips protrudes, which serves as a handle. They hold the net in the water of a shallow stream and walk up stream, after a little distance, they raise it and catch the fish. In the other type, the net is tied in a circular bamboo frame—the Santals call it 'Kabhi-Jal'. They also use bow and arrow in catching fish. The arrow head here is furnished with three heads. Fishing hook is used to catch fish now-a-days.

The locality where the women catch fish is either below or between the rice-fields where there is standing water. In such places the Santals catch fish in the following way. The water is first laved out sufficiently to make it possible to reach the bottom with one's hand. They go into the water and move about to stir up the mud. The fish becomes confused and numb in the slushy water and are easily caught with the hand.

Catching fish by poisoning is not unknown to the Santals. The poison used for this purpose is got from the roots and bark of certain trees¹. They powder them and throw them into the stagnant water of either pond or into a certain part of a stream, the fish are drugged and after some time they float on the surface and are caught.

Like hunting, the Santals have communal fishing in which people from neighbouring villages take part. The headman of the village, inside the boundary of which they want to catch fish, announces the date by a branch of a tree with leaves. On the appointed day they gather and after propitiating the bongas with fowls, they start for fishing.

1. Rev. Bodding collected the names of the trees which are as follows :—
The roots of 'Kila' (*Phoenix acaulis* Roxb.). The bark of 'Kumbir' (*Careya arborea* Roxb.). The bark of a tree called 'Sakri Phal'.

FOOD

The Santals eat almost everything. They generally live on vegetable diet because they cannot afford to eat meat often, but when they get meat they eat too much. Their staple food is rice which is prepared in the following way. They put rice into an earthen vessel containing a sufficient amount of water and is boiled, a plate is put on the top of vessel to keep the steam within, which causes the mass to be evenly cooked.

Besides boiled rice, the Santals eat parched rice which they call 'Khajari'. They put some sand in a broken or shallow earthen vessel and place it over the fire-place. They sprinkle some salted water on the rice which is to be fried, and mix it properly. Some of the rice they then place over the heated sand and stir it with a few broom sticks of coconut leaves. When the rice properly swells, they take it out of the sand, and eat it smeared with mustard oil or with molasses.

From rice they prepare cake, the local name of which is 'Pitha'. They have got a large number of varieties. Rev. P. O. Bodding in his memoir on "How Santals Live" has given a detailed description of all the varieties. A few I am quoting here from his writing :-

"JEL PITHA", meat cake. Sun-dried paddy is husked and cleaned, soaked in water for a little while, then dried and made into a coarse flour and sifted. The flesh is cut into small bits. Turmeric, pepper and other spices and salt are ground fine. All is well kneaded and mixed into the flour, that has been moistened. The whole is then pressed down on a leaf-plate. Another leaf-plate is with the help of

strawpins fixed on as a cover. The whole is placed into a fire-place, where there are live coals, and on the top more live coals are put. When ready the whole is taken out and eaten. This is much relished. The flesh used is mostly that of pigs or of fowls, also of sacrificed animals.

'KHAPRA PITHA', made from rice flour. The flour is made into a batter with water, nothing being added, except sometimes a little salt. Some batter is put into a shallow earthenware dish (karahe) a little oil being rubbed on the batter to prevent it from sticking to the dish. An earthenware lid is pressed down on the batter; and the dish is then put on the fire-place and heated. When ready fried, the karahe is taken off and turned, so that the cake falls out, and fresh batter is put in. This pitha is fairly large. Khapra is the Santal name for a roofing tile or a large potshered.

'OT PITHA', mushroom cake, prepared like jel pitha, with mushrooms instead of flesh or meat. If the opening of the fire-place is small, a large potshered is placed on the fire. When this is sufficiently heated, the patra (leaf plate) with its contents is placed on this. When baked on the underside, the whole is turned over with a twig to get the other side baked.

The Santals cultivate pulses of different varieties in their field. These pulses they boil in water and mix with turmeric, spices and salt. When it becomes semi-liquid they take it off the fire. This cooked pulse is called 'dal', and is taken with boiled rice.

Following are the pulses which are commonly eaten by the Santals.

- (1) Arhar (*Cajanus indicus* spreng).
- (2) Khesari (*Lathyrus Sativus* L.)

(3) Mug (*Phaseolus Mungo* Linn.).

(4) Musuri (*Lens esculanta* Moench.).

The Santals prepare curry with different vegetables which they collect from the jungle or they produce in their own kitchen garden. Potato is rarely used by them. From the jungle they collect certain edible roots, leaves and mushrooms, and with them they prepare curry. Pumpkins, sweet potato, brinjals, jhinga, ladies finger, beans, radishes, and onions are used by the Santals for curry.

The Santals eat various types of fruits, the most common are the followings :- jack fruit, guava, plantain, black berry, tamarind, papaw, etc.

The Santals relish animal food very much. They eat the meat of almost all birds and animals with the exception of tiger, leopard, horse, monkey, dog, mole, eagle, hawk, some types of frog, elephant and cat. They are very fond of the meat of pig, young crow, mouse, and hare.

They kill pigs in the following way:-

They let out their dogs to catch a pig which runs hither and thither on being frightened. They then shoot arrows at the pig. When it falls on the ground, they strike it on its head with a big stone. After it dies, they burn it in the fire, and when all the hair of its body is burnt, they cut it into pieces and cook it. Birds are similarly treated to remove the feathers. Fishes are eaten mostly as curry. Now coming in contact with the Hindus of the neighbouring areas, the Santals have ceased to eat meat of many animals.

Milk is not much utilized by the Santals, being mostly used for preparing curd and for churning butter. The churning is done by both men and women in the following way :- The earthen pot, in which curd is kept, is placed at the foot of a wooden post. They have a churning stick generally made of bamboo, which is three to four feet long and at the base of which are attached intersecting blades. This end of the stick is put inside the earthen pot. The upper end of the churning stick is kept in position by a cord running round the post and the stick. Another long cord is wrapped three or four times round the churning stick and by alternately pulling this cord from each end, the churning stick is made to swirl. After a while unsalted butter comes to the surface from which they prepare "Ghee". The butter milk (the liquid remaining after extracting the unsalted butter) is drunk by the Santals. They consider it to be very nourishing.

Oil Press :- The Santals use oil and spices in preparing curry. The oils which they generally use are—Mustard oil and oil from the fruits of the Mahua tree and from other various fruits and seeds. These oils they extract from the seeds and fruits by an oil-press. The oil press is made of two heavy logs of wood fixed on two vertically placed solid posts, at the two ends of the logs. The two logs where they face each other are planed. In the middle on the upper side of the lower log a shallow circular groove is cut and a small channel is made for the oil to come out through a lip, where some utensil is kept to collect the oil. To press the oil out, a rope is coiled round the logs at one end. In order to keep this down a wooden cleat is inserted

through the vertical post at the other end. Then they press together the two logs by placing another solid piece of wood crosswise over the upper log parallel to the wooden cleat which is fitted in the vertical post. With the help of these two, the logs are pressed together. Now-a-days the Santals supply the seeds and fruits to the Teli (oil men) and get oil in return. Besides using this oil for curry preparation they use oil in anointing, lubricating, for medicinal purposes and for lighting lamps.

How the Santals Prepare Pachawe (rice beer) :- The Santals drink Handi in large quantities. Young boys and girls, old men and women all drink Handi. Their method of preparing (rice beer) handi is as follows :- The first thing is to make a pot, with a large mouth called *tukuc*. The *tukuc* is filled with dry leaves or straw and set on the fire, they do it outside the house in the open as there is much smoke. This is done in the morning when they are to start brewing. When the *tukuc* becomes cool, it is cleaned. Then in the afternoon, they take ordinary rice and roast this a little. The roasting is said to give a certain flavour to the beer. Thereupon the rice is boiled and after that spread out to dry. The quantity of rice used for one brew varies from four to six paos (one pao is quarter of a seer). When the rice is fairly dry it is mixed with some vegetable fermenting stuff called Bakhar.¹ Very often certain vegetable matter is added to the Bakhar to make the beer intoxicating. When the rice and

1. Bakhar is a small round white thing which the Santals buy in the market. It is prepared by mixing hundred kinds of roots of trees and creepers with the powder of rice.

Bhakar are properly mixed, it is all put into the brewing pot generally in the evening. The contents in the pot are covered with a leaf plate to press the rice. And over it is put an earthen-ware lid. The brewing pot is then put aside in a place where people do not go often. The rice takes seven or eight days to ferment in winter whereas in summer four or five days. Cold water may be added until the pot is full. The beer looks milky and a little brownish in colour. It has a peculiar acid sweet smell, any one who has drunk a little may be detected by the smell from a considerable distance.

Before drinking the beer libations are made to Maran Buru the principal godling, and to the ancestors one after the other. It is done by pouring a little beer on to the floor inside the house. When the first brew is finished, fresh hot water is again poured on the rice, and this is called *doja handi* (second brew beer), it is not so strong as the first one.

To prepare wine from Mowar fruit, they place two earthen pots one above the other, the base of the second one is perforated and above it another earthen pot is placed in which water is poured. Below the surface of the second pot a bamboo pipe is fixed. In the first pot mowa fruits and water are put and left for four or five days. Then they boil the ingredients, when the steam rises into the second pot, and coming in contact with third pot, it becomes liquid and through the bamboo pipe it trickles out, and falls in a pot which is kept for this purpose. This liquid is the wine which they drink. But now-a-days the government does not permit them to distil liquor any more. The Santal traditions suggest that their first parents were taught to

brew beer by Maran Buru who came to them and told them he was their grand father.

Smoking :- The Santals are inveterate smokers. The indigenous method of smoking is to take some pieces of dried tobacco leaves, wrap them in a sal leaf, and smoke it like a cheroot. But now a days machine made cigarettes have made their appearance. The manner in which tobacco is most commonly used, is by chewing dried tobacco with lime. Hookas (hubble bubble) have also been introduced among them.

Domesticated Animals :- Dog is the most important animal to the Santals. Every Santal keeps at least one dog. The chief object of keeping this animal is for hunting though no special breed of dog is kept. They keep cows for milk and oxen to draw ploughs. They sometimes eat their flesh. Buffaloes they keep for above mentioned purposes. Goats and sheep are kept for trade and for food. Pigs are kept by the Santals in large quantity exclusively for food, and these animals do most of the scavenging. They feed them and also let them off to wallow here and there. In the evening they keep these animals in a small room specially prepared for them within the room where they keep cows and buffaloes, a small door is kept which the owner opens every morning before dawn to let the pigs out. Cats are kept by the Santals exclusively to catch rats. Fowls and pigeons increase and multiply apparently without any care being taken of them. They are also scavengers of the village. The Santals keep them to eat and to sacrifice them to their Bongas.

DRESS

The little apron or "lengta" which is worn by all Santal men, is made of white cloth, about four feet long and ten inches wide. In putting it they tie one thick-string round the waist and one end of this apron is tied with that string at the back and the portion left hanging is pulled through the legs from the back and up through the string in front, the rest sometimes hangs or is pulled through the legs from the front and tied with the string on the waist. The regular dress of the adult Santals consists of a loin cloth which hangs from the waist to the knee joint. The Santals generally use no head-dress. During marriage or other similar occasions they wear a turban, which is a long narrow white cloth, soaked in turmeric. Now-a-days young men, when they come to attend Hindu festivals like Durga, or Kali puja adorn their head with a yellow coloured turban. At present dhotis and saris are worn by the well-to-do Santals' men and women respectively like the Bengalis. Boys till they are five or six years old wear nothing. The Santal adults do not always wear a body cloth, using it in the cold season and very rarely in summer. When they come to the market they wear it over their 'lengta'. They have no warm clothing for the winter, and children of two or three years remain undressed.

The Santal women use two separate clothes. One they wear and with the other they cover their breasts. The piece which they wear is three feet long and two and a half feet in width. The piece which they use to cover the breasts is three feet long and two feet wide. The Santals when wearing new cloth colour the four

ends with turmeric. Formerly, all these clothes were made on their own loom, but now-a-days the Santals generally buy what they need from the market of the adjoining town.

Spinning and weaving:-The Santals wear cloth prepared on their own loom with their own thread besides purchasing from the market. They raise cotton for their own use. After the cotton is brought in, the first process is ginning. The ginning machine is very simple. It is an upright (drawing) frame work in which two wooden rollers are arranged to run in opposite directions by a sort of gear when the crank attached to one roller is turned. Cotton with seeds are put within the two rollers, and when the rollers are made to revolve, the cotton is separated from the seeds. Cotton is then spread and small bits of cotton are put over a bowstring which is then snapped. This does away with all the lumps and makes the cotton fluffy. It is then made into small rolls preparatory to spinning. Spinning is done by the spinning wheel. Spinning wheels are essentially spindles fitted horizontally into bearings and rotated by means of a cord passing round the threads attached to the two wheels and spindle. The wheels are revolved by hand alone. The spindle consists of a long iron needle, the working end is pointed, the other end is inserted into a fixed horizontal wood. Two wheels are fixed at a distance of about 6 inches to 8 inches apart in wood, a round stone is inserted in it between the two wheels. The two ends of the wood, with which wheels are attached, are placed on two uprights which again are fixed on a base of a "T" shaped wooden frame. The handle is fixed to the wood in which the wheels are fixed.

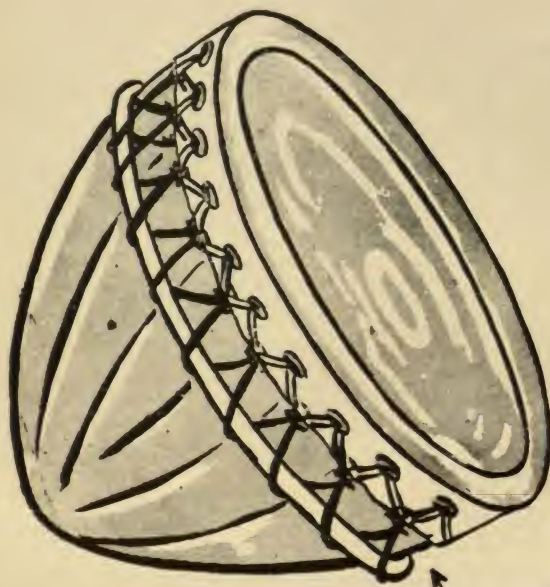
After the thread has been prepared it is transferred to the loom, a simple apparatus of a few bamboo sticks and wood. The warp passes horizontally round a beam held upon two wooden poles driven in the ground in such a way that the beam can revolve over them freely. Then the warp passes through (Rach) a comb like instrument. It is made of two bamboo sticks placed horizontally at a distance of 4" apart; over them a series of fine wooden sticks are tied. The opening between the two sticks is so small that only a fine thread can pass through it. This comb-like instrument is put in a wooden frame. The comb and handles made of thread are suspended from a bamboo put horizontally over two bamboo poles driven in the ground. To the handles two paddles of rope are tied which hang over a hole in the ground. The operator sitting before the hole puts the two feet on the paddles. When the paddles are in action one handle is raised and the other is lowered giving a wider shed with less strain upon the warp. The shuttle is a piece of flat wood, on one end a hole is made in order to coil the thread on the weft. The thread is passed through the hole around the other end of the wood.

Ornaments:—The Santals use very few ornaments, the male having no ornament to wear except small earrings which are generally made of silver. 'Hansli' a kind of necklace is a favourite ornament for the adult Santal women though they invariably wear necklaces of beads. Little boys and girls also wear them. These necklaces of beads are bought from the market. Heavy brass bracelets are worn by the women. Ear-rings made of silver, one inch in diameter are worn by the

women. Small rings made of silver are worn by the Santal women on one side of the nose, on the other side of the nose they fix a flat ornament made of silver. A brass or sometimes silver anklet of peculiar shape is worn by them. Every Santal girl wears flowers in her coiffure and over her ears. They comb their hair very neatly by applying mustard or mowa oil.

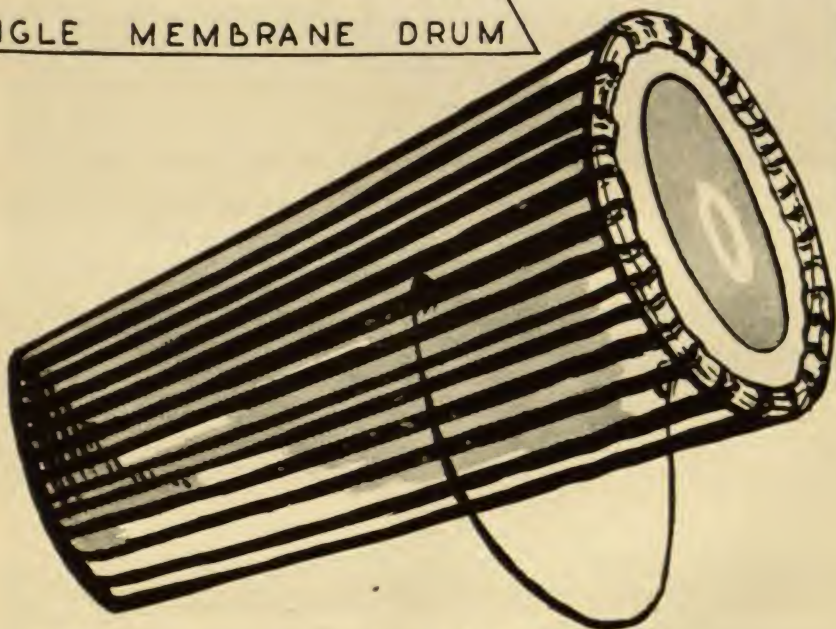
DANCES AND MUSIC

Musical Instrument :- The Santals possess very little in the way of musical instruments. The (Tamuk) Tum tum is their chief musical instrument, it consists of a hollow cylinder of wood with one end covered with cow or buffalo hide and the other end with goat skin. A drummer with his instrument slung across his chest slaps the Tum tum with his fingers, a double beat being the signal for them to turn. This is not their own preparation, they buy it from the Chamars. They beat another kind of drum which is quite different from the Tum tum in form and preparation. The body of the drum is semicircular and is made of iron, the open end is covered with cow hide. They beat this drum with sticks in both the hands. They have a flute made of bamboo, the length of it is about one foot and the diameter is one inch. The bucks blow it by holding it horizontally. They have a buffalo-horn trumpet (which they call Sakua). It is about one foot in length, in its middle a small aperture is made. This is sounded by blowing air through the aperture to which the lips are tightly pressed. The air current in passing throws the edges of the lips into vibration (the lips being elastic membrane), the lips performing a function analogous to that of a valve which in rapid alteration allows and



SINGLE MEMBRANE DRUM

FLUTE



DOUBLE MEMBRANE DRUM

checks the free passage of an air current. The note produced can be varied within harmonic limits by the action of the lips. The Santals have string instruments also. In their instrument only one string is used which is of gut. The frame-work of it consists of a box-like resonator, hollowed out and covered with goat skin. This goat skin is fixed to it by means of small pins of bamboo. The string is attached at one end to the neck and at the other to the distal end of the resonator. The string has a tuning peg and a wooden bridge for regulating its tension. The dancing-drum (Tumdak) has a slightly conical body of burnt clay; the body is covered with patches of strips of bullock-hide wound tightly round it; both ends are covered with skin, the broad end generally with bullock-hide, the narrow end with the skin of goat. Both ends are laced with strips of bullock-hide, stretched from end to end close together. These strips make the instrument much stronger, and they are placed close together to prevent the clay body from being easily touched. The ends are given a rim of boiled rice spread over the surface in circular form, often painted black with a red and white ring outside. The Tumdak is carried over the shoulder in leather thongs, the broad end always to the left side. It is drummed with the hands, the broad end with the left hand and the narrow end with the right hand.

Dancing :- The Santals love dancing very much and every evening the boys and maidens gather on a reserved open space in front of Jog-manjhis house for dancing. Males and females both dance together, though at times they dance separately. The maidens during dancing smooth and adjust their long hair and

fix flowers in their coiffure and over the ear. The males also tie peacock's feather on their foreheads. I am now describing the dancing of the maidens which I saw personally in front of Katikund bungalow, which is fifteen miles from Dumka. The maidens stand closely in a line in order of height. They then fall away sidewise to form a big semicircle, limbs all moving as if they belong to one creature. They move forward two or three steps and in the same fashion they move backward and at the same time they make a circular movement. The dancers in the ring sing songs all the while to the music of the flute. Three or four men take their stand in the centre of the ring, beating Tum tum and semi-circular drums furiously.

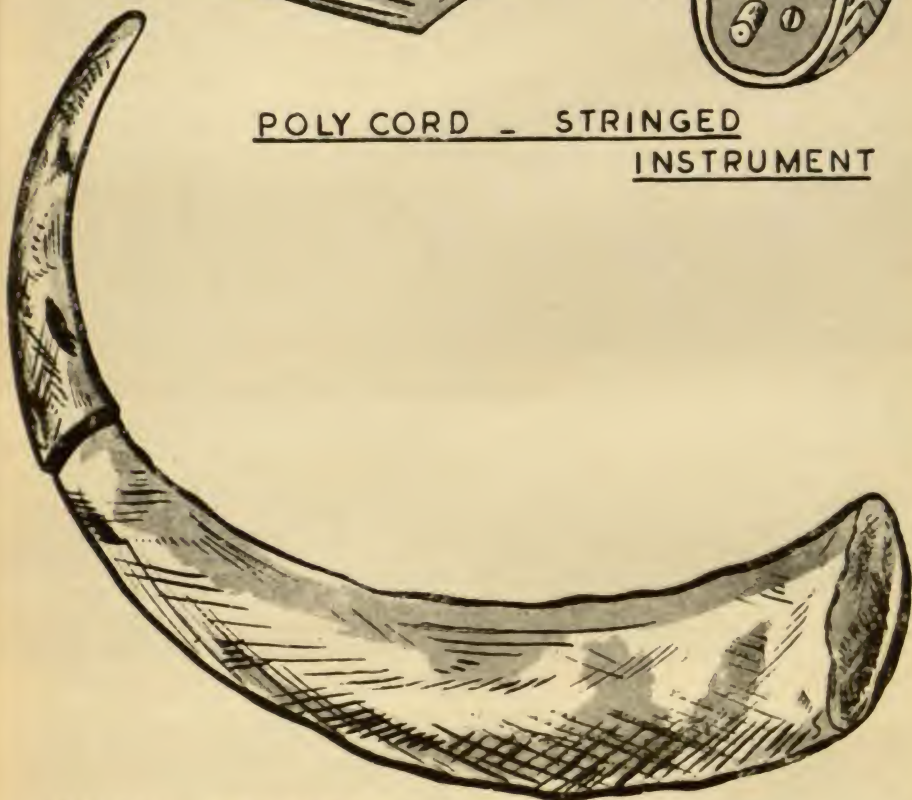
Dancing during Baha festivals :- Their dancing at the time of Baha festivals is different from that described above. They stand in a line the tallest first and the shortest last, then they bend down and each one raises and lowers both hands. In this way they move forward two or three steps and again come back. As above the dancers in the line sing songs, drumming and fluting goes on all the while.

Dancing in which both male and female take part :- Both maidens and youths decked with flowers and peacock's feathers hold hands so that the breasts of the girl touch the back of the man next to her, going round in a great circle. The dancers sing in tune to the music of drums and flutes played by the musicians in the centre of the circle.

Games:- In old days there was more play and less work for Santal children. But now-a-days they have to go with their parents to the fields and do their share



POLY CORD - STRINGED
INSTRUMENT



HORN TRUMPET

of work, they take cattle to graze in meadows in the morning and come back in the after-noon. But on off-days they still shout and play like children elsewhere in the world. They prepare little bows and arrows, aim at trees and huts and at times they shoot arrows at one another. The Santal boys play a game with a piece of a pot, the shape and size of it is like a rupee. In the open field they draw a big triangle on the ground. In one corner they make a hole of two to two and a half inches in diameter. From a distance of eight to ten feet, he, who throws the piece of pot in the hole, will be king and will climb on to the loser's shoulder who is called "Dom". He in turn again tries to throw it in the hole, and if he be successful in his attempt, he will climb on to the shoulder of the other boy.

The Santal children play a game which is known as Hide and Seek. Here one of the players remains standing in some open place shutting his eyes, while others hide themselves in different secret places. From those places they give a whistling sound, on hearing which the boy who shuts his eyes runs hither and thither to find them out. The one who is first discovered now becomes the seeker.

Santal boys play another game in which two semi-circular pieces of wood and a stick of bamboo or wood of $2\frac{1}{2}$ to 3 ft. are necessary. One of the two semicircular pieces is kept standing by the base just beside a hole in the earth. The other is placed about 4 to 5 ft. apart from the first one in the same way. Then one of the boys sitting behind the second one holds the stick with both hands and strikes the wood in front, and if it

goes direct and hits the first one in such a way that it falls within the hole, then that boy will get a second chance. In this way if he be successful seven consecutive times, then he will be called king, but if he be a failure in his first attempt then he will not get any more chance. The one who is not successful has to suffer a penalty by running a few yards on one leg.

CHAPTER III

The Santal Social Organization

Family : The family amongst the Santals should be of great interest considering that the Santals have been described as polyandrous. But besides the privileges of the younger brother over an elder brother's wife or the latitude allowed to the husband with the wife's younger sisters, there ought to have been traces of at least what has been called group-marriage. As the Santals could be taken as the representatives of a state of culture preceding the Dravidians in India and so be taken as a type of primitive patriliney, theoretically it should have shown the stages of family life which Morgan has described to be of pre-Aryan type. Linguistically, the Santals belong to what has been called the Austric group and thus would be the westernmost peripheral representatives of what is the Hawaiian type of family in the Pacific. In social structure also as well as in a sort of totemic organization the Santals recall several features of the Australian aboriginals. So an inquiry into the Santal family organization compared with the Hawaiian types or Australian systems or the polyandrous Nair or Tibetan types is necessary.

Types of Family: Amongst the Santal generally two types of family can be seen :

- (1) The individual family consisting of father, mother, sons and daughters.
- (2) The second consisting of grandfather, grandmother, sons, their wives, daughters (unmarried).

and grandchildren, which is equivalent to the Hindu "Joint family". The Maori calls it "Whanau" (meaning extended family or family group) which corresponds to the German "Gross familie".

The family is broken up by marriage when the daughters by the law of exogamy go to another clan. Up to the time of their marriage the daughters are the property of their fathers or the nearest male relatives (if the father is dead), who take charge of them; when married, they come under control of the family of their husbands (with these as their immediate lords and masters) and this they continue to be so long as there is any one who has a right over them. If such a state ceases, they have no longer any *locus standi*; they revert to their original relatives, if they are alive or become sort of guardianless minors, if none such exist they become utterly destitute except for what people may give them or what they may be able to earn through their work. It can be seen that the sons sometimes establish their own home, when they have got their own family. But ordinarily the sons with their wives live with their father and mother.

Ghardi-Jawae : There is a third type, in which the son-in-law is taken as a son in the father-in-law's family. If in a Santal family there is no son but only a daughter, they marry their daughter off and give the son-in-law the position of a son, provided he lives with his father-in-law. If in a family there are grown-up daughters and minor sons, the son-in-law works for his father-in-law without wages for five years. He then gets two buffaloes, some rice and some agricultural

implements, and sets up a house for himself and his wife. This sort of son-in-law is called Ghardi-jawae.

Family not Polyandrous: In the individual family the father is the *pater familias*, whereas in the other type the grandfather or any senior male member is head in every respect; other members, however senior they may be in age, must remain under his authority. In the Santal family all the brothers marry different wives (monogamous) which can be verified from the genealogical trees of the different Santal families. It is not like the normal Toda family which consists of a number of brothers—brothers with one wife, and each house belongs to a family of this kind and is handed on to the children of the brothers (Rivers' Toda, p. 559).

There are no different terms of kinship for the father, father's brother, as also for mother and father's brother's wife which would not have happened, if there had been polyandry—

(Toda)	Father	...	...	In (aia).
"	Father's brother	...	...	"
"	Mother	...	...	Av (ava)
"	Father's brother's	...	...	"
	wife	...	...	"

A consideration of terms of kinship of the Santals side by side with that of the Todas shows that the terminology of the Santals is cast in the same way as amongst the Todas. The terms for father and the father's brother are the same, the only difference being marked by the addition of descriptive words like Gongo (elder) or Hopen (younger); so also the terms for

the father's brother's wife and of the mother are the same, only modified by the addition of descriptive terms, younger and elder. This might argue in favour of the existence of polyandry amongst the Santals. But the constitution of the family is entirely different. Amongst the Santals as distinguished from the Todas each brother has a separate wife who is always recognised as the partner of that brother only and does not belong to all the brothers as amongst the Todas. When the child is born, there is no question of any difficulty of identity of the biological father, who is bound by individual marriage ties to its mother. This is quite different amongst the Todas, where a sociological fatherhood has to be determined by the bow and arrow ceremony of generally the eldest brother in the family, when a woman is with child. This sociologically recognised father may be quite different and is often so from the real biological father. But amongst the Santals the sociological and biological father is always the same except in cases of adultery. Amongst the non-fraternally polyandrous Nairs again, there was a custom of several husbands visiting a common wife in turn and leaving shoes, etc., outside for prohibiting the entry of other husbands. There is no trace of any such custom nor any matriarchy amongst the Santals, which would have been necessary for such a system of non-fraternal polyandry. True, there is the custom of the junior levirate by which the husband's younger brother has marital right over the elder brother's widow. But this marriage can only take place when the elder brother is dead and there is no question of the younger brother marrying the elder brother's wife while he is alive. Though there is a jocose relationship between

them, the elder brother's wife is respected as mother. So also, the elder brother avoids even touching the shadow of the younger brother's wife, not to speak of her being regarded as the property of the elder brother. There is also the custom of sororate, by which a wife's younger sister could be married by the husband. But the wife's sister is generally and almost universally married to another. So it is possible that the identity of the terms of kinship for the father and father's brothers may be explained by the levirate. In such a case the father's brother's wife would be a second mother and so the terms of kinship for the mother and father's brother's wife, would be the same. Besides, the function of the father's elder brother's wife in a joint family system is more or less that of a supervising mother; so this also might explain the identity of the kinship terms.

(Santal) Father	... Apum, now also baba.
„ Father's brother	... (Gongo) Apum (elder), (Hopen) Apum (younger).
„ Mother	... (Ayo Gongo).
„ Father's brother's Wife.	... (Gongo) Ayo (elder), (Hopen) Ayo (younger).

But the Santal family though apparently the same in structure of kinship terminology is quite different from the polyandrous Toda family. Comparing the families of these tribes it can be seen clearly that polyandry is not present amongst the Santals. Mr. Craven and the Rev. L. O. Skrefsrud have stated in J.A.S.B., Part 3, 1903, pp. 88-90, that fraternal

polyandry is a recognised custom among the Santals and this has been taken up as an official fact in the District Gazetteer, Santal Parganas. But when we compared a Santal family minutely with the polyandrous family of the Todas as above, we found the opinion of these two writers not supportable by any evidence whatsoever.

Husband and Wife : The definite nature of an individual non-polyandrous family amongst the Santals is brought about by the relation between the husband and wife. When they once settle down to life, it is generally for good; the conjugal love is similar to what we find in civilized society. The husband in important matters consults his wife. At the time of the marriage of their sons and daughters, the consent of both the father and the mother is necessary. There is often a genuine mutual respect between husband and wife. By the legal basis of the marriage, the Santal recognises the ownership of the husband individually, as indicated by the mutual besmearing with Sindur or red vermilion, but only in a minor degree, that of the family of the husband, over a woman. The Santal wife, inspite of her theoretically subordinate position, in practical life has a fair amount of independence and often a position which may be said to be nearly co-ordinate with that of her husband, within her own sphere. The Santal husband and wife carry out the duties towards one another as far as possible in a primitive society. The husband gives clothing to wear, lodging and board and other necessary things which a wife in a primitive life requires, while the wife feeds her husband by cooking food, for which she collects fuel from the neighbouring

forest, and brings water from a streamlet flowing near by. Every morning the wife getting up from the bed cleans the house with mud and cow dung. Over and above that, she goes to the agricultural field to help her husband. In the daily social life of the people the Santal woman has a very independent and strong position both at home and in the village.

Position of Women : Some writers have remarked that the Santal women are looked upon as mere chattel, with which opinion I disagree. Rev. P. O. Bodding is of the same opinion with me (see some remarks on the Position of Women among the Santals). Such writers have gone too far. Making a tour of almost the whole of the Santal parganas, I got the idea that the Santal women have an important status in their society. Though they are shut off from certain religious and administrative functions their economic status is very high. It is they who generally go to market, do the bargaining—all the produce is in their hand—and they make over the proceeds for the sustenance of the family to the male members. They are the repositories of the moral and religious tradition of the society. All the infringements of social order are brought to the notice of the male members through them.

Parents and Children : The relation between the parents and children among the Santals is also of a sweet affectionate type. How strong the affection of the Santal parents is towards their children can be seen from the following facts. The mother or the grandmother of the children always carries the children even when going to the Mela or to the field. When a child is attacked with any disease, the parents

become restless and call in the Raranic (Herbal doctor) or the Ojha (Shaman) for curing him.

Illustrations : In the course of my tour in the Santal Parganas, in Godda Damin in the village Sundarpahari, a man one day requested me to see his son who was suffering from some disease. I went there and saw that the mother of the child held him on her lap. The child at that time was pale and anaemic, and the very sight showed that he was in a dying state. In the evening of that very day I heard the child was dead. I at once went there and saw a very pitiable sight. The mother held the dead body fast in her lap and would not part with it, cried loudly and gave vent to her feelings in the following lamentation song¹:

"Jare jare dullarya tingdo, ardo okare tahekan tinyia
Indig men keda lengegimenai tingia
Haire haire dhon tingdo akarbo
Tine dine jom leda
Jara jare dullarya tingdo okakoreye suroh baraikan
tingia.
Indigo menkidaing jahan beret ketingya".

(English Translation)

"Oh me! oh me! my beloved one
Where art thou now, my darling.
I said to myself all is well with me
Alas, alas, my treasure, how short a time
thou wast with us.
Oh, my beloved, oh, my beloved, where hast
thou found a place?
I said to myself he will get well again
Ah me! ah me!"

1. E.G.Man—Sonthalia and the Sonthals, London 1867.

At the time of parting after marriage the mother of the girl sings the following song which shows how strong is the affection of the mother towards her daughter¹ :

“Dash manse kukhi may rakalom,
 Baro manse danda may rakalom,
 Ebekaise racabo madiya,
 Duyar rahilagigelare thesh,
 Dosh manse kukhimmay rakhalom,
 Baro manse dandamay rakhalom,
 Ebekaise rackabo madhlya yayokera,
 Mayakoise chhora Bore.

Utho dhanichala dhalga yuth,
 Dhanichals dhani ghorge,
 Chala dhani yuthi chali jay,
 Tilamaka tandi purbhu ghora,
 Jhinilage yayokera,
 Mayakoise chhora Bore,
 Baba hipaoyalang mutha bhari,
 Taka oyajo bhayahi paopalang,
 Sursingya barada, mayahin,
 Paoyalang kanchura kapra jore.

Muth bhari taka paoya yudali,
 Jai gel surasingya baroda gada,
 Shota jay gelo, kanchura kaprajo,
 Chhitali jay gelo, matha bhari,
 Sindura jo jonome jonome daybhel”.

¹U. E. G. Man—Sonthalia and the Sonthals. London 1867.

(English Translation)

"For ten months I kept thee in my womb,
For twelve I had thee on my waist,
How can I keep thee now ? Oh, my daughter,
The house is up to the door full of people.

(Chorus)

For ten months I kept thee in my womb,
For twelve I had thee on my waist,
How can I keep thee now ? Oh, my daughter,
How can thou part with mother's affection.

Oh mother, for pity's sake do not leave me.

How can I leave thee ?

Get up my daughter and begone.

On the Tilayaka place stands the rich man's

horse saddled and bridled,

Oh my darling mother, how can I leave thee?

My father has received a handful of rupees

and a long horned bull

Mymother has got a striped dress

The handful of rupees is spent, the striped

dress of my mother is worn out

The tall-horned bull died in the bathing place

My head is marked repeatedly with the red paint

I am signed for ever and ever"

I now cite an incident in which it can be seen how the father is attached to his sons and daughters—for the son's sake the father murdered his own mother and mother's sister.

It was alleged that Malta lost a son and a daughter who died of fever some time before the murder. Suspecting that his mother was a witch and

was killing his children with her baleful influence, he convened a panchayat of the village elders and accused his mother of witchcraft. A quarrel in the family followed, when his mother left his protection and went to her sister's residence in the same village. A few days later Malta went to the residence of his maternal aunt for the treatment of his sick child by her husband Juno, who was a doctor amongst the Santals and stayed there for a few days. On the night of occurrence Malta who had fever slept in the same room with his mother, his aunt, his son and the other inmates. But at about midnight Juno, the village doctor was roused from his sleep by certain sounds and he noticed that Malta was standing with a pickaxe in his hand near the bed where his mother and aunt slept. The two women were lying senseless on the bed with bleeding wounds on their heads.¹

The relation between the elder brother and the younger brother amongst the Santals is very interesting. The elder brother, specially the eldest one, is looked upon as the representative of the father and after his death is the head and governor of the family. For this reason there are in fact some Santals who look upon the wife of the eldest brother as equal to their mother and pay her respect accordingly. Again the elder brother cannot call by name the wife of his younger brother. (This was verified whenever I asked for the genealogical table of the Santals. I noticed that in every case the elder cannot take the name of his younger brother's wife; he asked others to tell her name). The Bakat bahu

1. Amrita Bazar Patrika, 18th May, 1933.

(younger brother's wife) cannot touch the shadow of her husband's elder brother.

Sept and Sub-sept Organisation :- The internal structure of the Santal tribe is singularly complex and elaborate. There are several exogamous divisions called Parishes (septs). Ten names were obtained by me at Dumka, Dumka Damin, Godda, Godda Damin, Jasidhi, and Hazaribagh districts. In Deoghar I got eleven Parishes:

Sept	Meaning	Sept	Meaning
1. Hansdha	Wild goose	6. Soren	The constellation Pleiades.
2. Murmu	Nilgai	7. Tudu	Nil
3. Kisku	Nil	8. Baske	Nil
4. Hemrom	Betel Palm	9. Besra	Hawk
5. Marandi	Sabai grass	10. Chonrey	Lizard

In Deoghar in addition to the above I recorded another sept namely 'Pauria' the meaning of which is Pigeon.

Edward Garnet Man described in his 'Santhal and Santhalia' the following twelve Parishes of the Santal :

Sept	Sept
1. Hanshdha	7. Besera
2. Murmu	8. Kedoar
3. Soren	9. Baske
4. Tudu	10. Marmoring
5. Marli	11. Bisra
6. Kisku	12. Hemron

Marli, Besera, Kedoar, and Marmoring—these four Parishes I could not find any where in the Santal Parganas.

Dalton in the Ethnology of Bengal divided the Santals into the following tribes :

Sept	Sept
1. Saran	7. Tudi
2. Murmu	8. Baski
3. Marli	9. Hemrow
4. Kisku	10. Karwar
5. Besera	11. Chorai
6. Hansda	

The Karwar, which Mr. Dalton recorded as a tribe, is not a tribe but a sub-sept of the Hansdha sept. He has written the English equivalent of the Santali word Parish as tribe, which I think is not correct. In the truest sense of the term it will be a sept.

Sir Herbert Risley has noted the following twelve septs of the Santals :

Sept	Sept
1. Hansdak	7. Baske
2. Murmu	8. Besra
3. Kisku	9. Pauria
4. Hemrom	10. Chore
5. Saren	11. Marandi
6. Tudu	12. Bedea.

Among the twelve septs, I found Besra, Murmu, Kisku, Tudu, Hansda, Soren, Marandi, Hemrom and Baski in large numbers in the Damin area of the Santal Parganas. The septs, Chonrey and Besra are regarded by the Santal as inferior amongst the twelve septs ; that is why the people who actually belong to one of the above two septs, give themselves the names of the other septs

when asked, suppressing their own. The sept Bedea is not found in this area.

The aforementioned septs (Parishes) are again sub-divided into sub-septs (Khunts). The Santal inherits the sub-septs in the father's line. The sub-septs (Khunts) are as follows—

Septs (Parishes)	Sub-septs (Khunts)	Meaning
I. Baski.	1. Nij.	Oneself.
	2. Sada.	Apply no vermilion at the time of puja.
	3. Nalkekhil.	
	4. Sure.	Cooked along with rice.
	5. Kerwar.	
	6. Loat.	
	7. Mundu.	Means a jungle.
II. Besra.	1. Bundra.	
	2. Kahu.	Crow.
	3. Kara guza.	There were two blind brothers, from their names this sub-clan begins.
	4. Nij.	
	5. Sibla.	A cultivated-fibre yielding plant (Crotalaria juncea D. C.)
	6. Son.	
	7. Sung.	
	8. Sada.	
	9. Naike khil.	
	10. Loat.	Creeper.
	11. Kahu.	

III. Hasdak.	{	1.	Barwar.	
		2.	Kedwar.	
		3.	Chilbhindha.	Eagle-slayer.
		4.	Jihu.	Babbler, a kind of bird.
		5.	Nij.	
		6.	Sada.	
		7.	Rok-Lutur.	Ear-pierced.
		8.	Kara-guja.	
		9.	Naika-khil.	
		10.	Kahu.	
		11.	Sak.	

IV. Hembrom.	{	1.	Gua.	Areca nut
		2.	Tahur.	
		3.	Kumar.	
		4.	Laher.	
		5.	Dantela.	So called from their breeding of pigs with very large tusks for sacrificial purpose.
		6.	Nij.	
		7.	Uh.	
		8.	Roh-Lutur.	
		9.	Naike-khil.	
		10.	Sada.	
		11.	Manjhikhil.	

V. Kisku.	{	1.	Abar.	
		2.	Ah.	
		3.	Kachua.	Tortoise.
		4.	Lat.	Baked meat in a leaf-plate.
		5.	Nag.	Cobra.
		6.	Nij.	
		7.	Sada.	
		8.	Roh-Lutur.	
		9.	Somal.	Deer.
		10.	Naike khil.	
		11.	Son.	
		12.	Buru-beret.	

VI. Marndi

- | | | |
|-----|------------------|--------------------------------|
| 1. | Buru-beret. | Of the hills. |
| 2. | Kekra. | Crab. |
| 3. | Manjhikhil. | Worship on the
Manjhasthan. |
| 4. | Naike khil. | |
| 5. | Nij. | |
| 6. | Roeth. | Panjaun tree. |
| 7. | Sada. | |
| 8. | Rok-Lutur. | |
| 9. | Keawar. | |
| 10. | Sidup. | |
| 11. | Khanda. | Weapon or a Sari. |
| 12. | Khanda
Jogeo. | |
| 13. | Rupa. | Silver. |

VII. Murmu.

- | | | |
|-----|-------------|--|
| 1. | Bitol. | Outcasted. |
| 2. | Boor. | Fish. |
| 3. | Coopier. | Small in the hind
quarters as a
bullock. |
| 4. | Handi. | Earthen pot. |
| 5. | Nij. | |
| 6. | Sada. | |
| 7. | Samark | Sari. |
| 8. | Sikiya. | Chain. |
| 9. | Tikka. | To put a mark on
the forehead. |
| 10. | Naike khil. | |
| 11. | Manjhikhil. | |
| 12. | Laher. | To cut. |

VIII. Soren.

- | | | |
|----|----------|---|
| 1. | Sada. | |
| 2. | Nij. | |
| 3. | Jugi. | Give to the puja
the things which
they bring by
begging. |
| 4. | Barchir. | Spearman. |

VIII. Soren. (Continued)	{	5.	Manjhikhil.	
		6.	Naike khil.	
		7.	Sidup.	Bundle of straw.
		8.	Sak.	Conch-shell.
		9.	Khanda.	Those who worship buffalo.
		10.	Poita.	
		11.	Tika.	
		12.	Mal Soren.	
		13.	Rok-Lutur.	

IX. Tudu.	{	1.	Agaria.	Charcoal burner.
		2.	Chigi.	
		3.	Dantela.	
		4.	Lat.	
		5.	Manjhikhil.	
		6.	Naike Khil.	
		7.	Nij.	
		8.	Sada.	
		9.	Roh-Lutur.	
		10.	Sung.	

X. Paurid (no sub-divisions found).	{	1.	Mundu.	
		2.	Kahur.	
		3.	Sidup.	
		4.	Naike Khil.	
		5.	Nij.	
		6.	Sada.	
		7.	Manjhikhil.	

XI. Chonrey-Core (no sub-divi- sions found).	{	1.	Naike Khil.	
		2.	Kahu.	
		3.	Nij.	
		4.	Lat.	
		5.	Manjhikhil.	
		6.	Sada.	
		7.	Gua.	

XII. Bedia (extinct).

Traditions of the Septs

In Horkoren Mare Hapramko Reak Katha of Rev. P.O. Bodding, which is written in Santali language, he has recorded the tradition of the Santal people. In it there is a story that the septs, Hansdak, Murmu, Kisku, Hemron, Marandi, Soren, Tudu, are believed to be descended from the seven sons of the first ancestors, Pilchu Haram and Pilchu Burhi. The five others have been added afterwards as an inferior moiety. As regards the origin of the five additional septs the following stories are told :

The sept Baske at first belonged to the above seven, but by reason of their offering their breakfast to the gods while the Santals were still in Champa, they were formed into a separate sept under the name of Baske. The Besra were separated on account of the immoral behaviour of their eponym, who was called Besra the licentious one. The sept Pauria is called after the pigeon and the sept Chonrey after the lizard ; and the story is that on the occasion of a famous tribal hunting party the members of these two septs failed to kill anything but pigeons and lizards, so they were called after the names of these animals. The sept Bedea was left behind and lost when the Santals went out of Champa and is now extinct. They had no father, so the story goes ; the mother of their first ancestor could not say who his father was and for this reason they were deemed to be of inferior rank to the other septs. This sept is believed to have arisen during the time of Mando Singh in Champa when the Santals had begun to come in contact with the Hindus. Some Santals say that the father was a Rajput and the mother a girl

of the Kisku sept. Santals are very particular about the honour of their women so far at least as outsiders are concerned and it is quite in keeping with their ideas that a sept formed by liaison with a Diku (non-Santal) should have been looked down upon and eventually banished from the community.

The names of the sub-septs have been collected from my Santal informant Ram Marandi (Parganait of Sundar Pahari of Godda sub-division). It agrees substantially in detail when I checked up the data from Campbell's Dictionary published in 1899. The sincerity of my informant is to be judged from his not being able to mention any sub-sept Chonrey and Pauria which do not occur in that area. The general impression which I gathered from other Santal dignitaries is that the sub-septs did not generally exist. The sub-septs appear at least in this case not to be exagamous units at all; they rather mark family distinction and traditions, for instance those who would not paint vermilion would be called Sada (white) or those who may have been descended from a headman or a priest would be called Majhikhil or Naikekhil. The sub-septs thus marked an important tendency of the Santal exogamous group either to be divided into sub-groups or sometimes to add a sub-group to itself. This alone explains the disparity in number of the sub-septs in the various septs. There is of course a tendency of the sub-septs to approximate to the number twelve according to the pattern of the total number of the septs. But this is by no means the case. Apparently the one important function of the sub-sept is to distinguish between Nij and Sada which occurs in all the septs. This pertains

to the use of vermilion and may be due to the important custom of smearing with vermilion on the occasion of marriage and other auspicious ceremonies which once divided the Santals into two groups based on the use and non-use of vermilion. That this was the uppermost idea in the Santal's mind was forcibly impressed on me while taking their measurements and enquiring of their sub-septs; the majority came out with either Sada (white) or Nij (proper). Thus the sub-sept division not being exogamic is not so much a vital part of their social organization; rather it was a division due to cultural difference. The possibilities are that once either the vermilion was a borrowed culture trait from outside or its use was given up by a section due to some internal reform movement or influence of some superior non-vermilion-using culture. It is more probable that the use of vermilion was more innate to them because the users are called the Nij or proper. Vermilion, it may be noted, is used by them only on the occasion of marriage. Among the Bengal Hindus vermilion is not only used in marriage but has to be always worn on the parted hair of the married women, lack of vermilion signifying widowhood. On the other hand in other parts of Hindu India more stress is laid on the use of flowers by the married women. Vermilion is not known in the primitive area of Assam. Thus it is probably a vital part of the culture of Chota Nagpur tribes.

Notes on Sub-septs

THA-OK SUB-SEPT

Whenever any ceremony (religious) occurs the members of this sub-sept sacrifice a goat or a pig in

their houses, and they shut the doors tight and allow no smoke to escape.

MAL SUB-SEPT.

They may not utter the word Mal when engaged in any religious ceremony or when sitting on a panchayat to determine any tribal question.

JIHU SUB-SEPT

They may not kill or eat the Jihu or babbler bird, nor may they wear a particular sort of garland known as Jihu Mala from the resemblance which it bears to the babbler's eggs. The Jihu is said to have guided the ancestor of the sept to water when he was dying of thirst in the forest.

SANKH SUB-SEPT

They may not wear shell necklace or ornaments and are forbidden to eat, carry, cut, or use shell.

JUGI SUB-SEPT

They smear their foreheads with vermilion at the harvest festival and go round asking alms of rice. With the rice thus collected they make cakes which they offer to the gods.

MANJHIKHL SUB-SEPT

The members of this sub-sept are descended from the Manjhi (headman of a village) i. e., their ancestor was a Manjhi.

NAIKEKHL SUB-SEPT.

The members of this sub-sept claim descent from a village priest.

Totemism of the Santals

The Santals as mentioned above are divided into a number of septs and sub-septs mostly named after some animals, plants, fruits or other material objects. It is now worth enquiring how far the septs and sub-septs have totemic relations with such things. Totemism, in the truest form is not present amongst the Santals. The Santals of our days do not believe in the actual descent of a clan from its totem, and the few legends of the Santals about the origin of some of their clans do not point to any belief in the descent of men from their totems. All that they indicate is that the totem animal and plant had some accidental connection with the birth of the ancestor of the clan. As for example the sept Pauria is called after the pigeon and Chonrey after the lizard; and the story is that on the occasion of a famous tribal hunting party the members of these two septs failed to kill anything but pigeons and lizards, so they were called by the names of these animals.

As with other totemic people a Santal also abstains from eating, killing, hunting or destroying the animal, plant or other objects that form his clan totem. Eating, killing, hunting, and destroying one's clan totem is regarded by the Santal as equivalent to killing a human member of his own clan. The idea of brotherly feeling between the members of the same clan is present among them. The marriage between persons of the same clan is considered incestuous which may be taken as a confirmatory test of the above idea.

Descent of the Santal is always reckoned in the male line and a man has the same totem as his father; the totem of the mother's father's line is not respected. As a female has no clan of her own, she is not a recognised member of her father's or of husband's clan and has not therefore to observe the taboos relating to their totems. But actually the Santal women do not kill any totem animal or any totem plant, just as their husbands do not kill or destroy any totem animal, plant and other object.

Individual or sex totem is unknown to the Santals. Their totem is hereditary and not acquired. The members of a clan do not wear any distinguishing emblem or peculiar dress nor have they representations of their totem cut or tattooed on their persons or carved or painted on their houses or any personal belongings.

MARRIAGE

The Santali name for marriage is 'Bapla'. Mr. O'Malley is of the opinion that bapla is a word which very probably meant originally mutual strengthening i.e. of the two families.¹

It is strictly forbidden for any Santal to marry within his own sept (Parish). He may marry into any other sept or sub-sept to which his mother belonged. Among the Santals there is a custom that a Santal can marry a girl who is three kursis (generations) apart. There are some septs which never intermarry with one another in consequence of some ancient feud between them. A Hansdak male or a female

¹L.SS. O'Malley, Bengal District Gazetteers. Santal Parganas, Calcutta 1910 Vol. XXII Page 134.

never marries a Murmu female or a Murmu male respectively. Similarly a Tudu male never marries a Besra female and vice versa. An old Santal of Tudu sept told me the following tradition explaining why inter-marriage is not allowed between the Tudu and Besra septs.

Once a woman of Besra sept fell in love with a Tudu man, but the man did not agree to marry as the Besra sept is lower. Then the relatives of the man and woman made an agreement that if between the fight of their sept-animals, buffalo and cock, the cock would lose its life then there would be marriage. On the fixed day before the relatives of the both sides this fight took place. The headman of the village holding the pointed horn of the buffalo in one hand and the cock in another asked the permission of the men on both sides, and when they gave an answer in the affirmative, he let them loose and a fight then ensued between the cock and the buffalo. In the fight the cock took out the two eye-balls of the buffalo with its pointed beak, in consequence of which the buffalo lost its life. Thence no marriage was allowed between the two septs. But now no such restriction can be found.

Girls are married as adults mostly to men of their own choice. Sexual intercourse before marriage is tolerated ; but if a girl becomes pregnant the young man is bound to marry her. Should he attempt to evade this obligation he would be liable to severe punishment by the Jogmanjhi, and in addition to this his father would be required to pay a heavy fine.

In Santal marriage there is no restriction of age. The bride may be younger, older or of equal age with the bridegroom.

There are mainly two types of marriages practised by the Santal—The marriage which is arranged by Raibar (marriage maker), is the regular form of marriage which is more prevalent but now-a-days the other forms of marriages namely those which are arranged by the couple themselves are not very uncommon.

MARRIAGE

Arranged by
marriage-maker
(Raibar bapla)

(arranged by
couple
themselves)

1. Sanga Bapla.
2. Kudam Bapla.
3. Kiring-Jawæ.
4. Gardi Jawæ Bapla.
5. Apangir Bapla.
6. Tunki Dipil Bapla.
7. Itut Bapla.
8. Nirbolok Bapla.

Raibar Bapla: The practice is that the parents on both sides select the bride and bridegroom. Generally it happens that some relatives of the bridegroom, when they go to some village for some business and find a suitable bride, inform the parents of the bridegroom that in such and such a village there is a suitable bride and if the son is given in marriage with her it will be a good match. After that a Raibar (marriage-broker) is appointed by the bridegroom's parents and he negotiates the marriage between them.

If the girl's father approves, then he is taken to the bridegroom's house to enquire about the bridegroom's family position and economic condition. If he is satisfied in the enquiry then preparations are set afoot for the inspection of the bride and bridegroom by the representatives of both the parties. If the boy and the girl are regarded as suitable partners then arrangements are made for the pair to meet. The usual place for such meeting for the Santals is a fair. I saw such a meeting in a fair at Katikund village within Dumka Damin. A little away from the fair a bridegroom with his relatives stood in a row and the bride with her relatives stood in another row face to face about four feet apart. Then one of the females on the bride's side approached the bridegroom and rubbed mustard oil on his face and gave him some fried rice and the woman saluted all those who were there. The same thing was repeated by a woman of the bridegroom's side to the bride and her relatives.

After this, a day is fixed for the informal inspection of the bride. On the appointed day the bridegroom's father with the headman of his village, the marriage-maker (Raiber) and a few important persons of the village starts at day break for the bride's village. When the party reaches the outskirts of the bride's village, the marriage maker contacts the headman of that village and informs him about the arrival of the party. The news of the arrival of the groom's party at the outskirts of the village is circulated by the gorait (peon of the headman) to all the members of the village. Then the bride's father together with the headman go to receive them and enquire whether they have

encountered any omen good or evil on the way. Much depends upon these omens because evil omens even nullify the marriage negotiation. If no evil omens have been met with the parties greet each other and come to the house of the bride. As soon as they reach the house of the bride the bride's parents and the bride wash the feet of the members of the bridegroom's party with a lota (brass vessal) full of water. After the approval of the bride the bridegroom's party takes their bath and meal which is arranged by the bride's father. Then the party comes back to their village.

Jawaidhuti and Bahubandhe Ceremonies: The Raiber contacts both bridegroom and bride's parents to fix the dates for the above two ceremonies. The dates are fixed according to the convenience of the parties.

At day break on the appointed day the bride's father together with the headman of the village, the headman's assistant and a few relatives and co-villagers set out for the bridegroom's house. When they reach the outskirts of the bridegroom's village, the bride's father welcomes them cordially and brings the party in the house and entertains them with handi (country liquor). Then the would be bridegroom comes and the would be father-in-law takes him on his lap and dresses him with a new piece of dhoti and turban and gives him some money which varies from annas four to one rupee, and kisses him. The bridegroom drinks pachawee and is carried on the shoulders of his eldest brother-in-law (sister's husband) and the members of both the parties cut jokes. After this they take their meal drink pachawee (rice beer) and sing songs with madals

and cymbals, and embrace each other. Then the bride's party comes back to their village.

After a few days the same ceremony is repeated in the bride's house. The bridegroom's party comes to the bride's house and the future father-in-law takes the girl and seats her on his thigh and gives her a solid brass necklet and kisses her.

Takachal (Payment of Bride-Price): Generally the bride's father demands twelve rupees now a days. This bride-price is divided between the following persons :—

Father of the bride gets Rs. 3/-

Mother of the bride gets Rs. 5/-

Mother's mother gets Rs. 2/-

Father's mother gets Rs. 2/-

The brother of the bride will get from the bridegroom a bull, if the bridegroom's father fails to give the bull then he pays Rs. 2 in exchange. The headman of the bride's village gets from the father of the groom one rupee. From that rupee the headman pays annas eight to the bariatko (those who follow the bridegroom to the bride's house). Previously there was a custom to give rice and Pachawee and not cash.

The next function is to fix the day for marriage. The Santals give their sons and daughters in marriage generally in the month of Baisakh and Phalgun. It is their custom not to marry their children in the month of birth. Through the Raibar the bridegroom's father sends a string with a number of knots on it. The number of knots indicates the number of days. The father of the bride therefore getting the string understands that the bridegroom's father wants to fix his son's marriage as many days afterwards as the string

contains knots. Now, if the father of the bride agrees, he sends the same number of knots on another string to the bridegroom's father by the Raibar, but if he wants to have his daughter's marriage earlier or later he sends more or less knots on the string as the case may be.

Mandwa Ceremony: Then comes the Mandwa ceremony which may take place on the marriage day or one or two days earlier. This ceremony is performed in the same manner in both bride's and bridegroom's houses. For this they build a temporary shed in the centre of the courtyard. This is a rectangular shed with a strong central post which is called *Mandwa-Khunti*. This shed is erected by the young men of the village who are known as *Mandwa Kora*. *Pachawee* and boiled rice are given to those young men both at the time of building and at the time of removing it after marriage. In the centre of the shed a branch of the Mahua tree (*Madhuca latifolia* Roxb) is planted and young maiden of the village keep five roots of turmeric, five paddy-grains and five pice in a hole which is dug by the unmarried youngmen¹. The Jogmanjhi brings five Kumaris (unmarried girls) to rub oil on the following persons within the Mandwa shed in the following order: Naike and his wife, Kudam naike and his wife, the headman and his wife, the Paramanik and his wife the Jogmanjhi and his wife, the parents of the bride and bridegroom, as the case may be. Last of all, in the hands of villagers who may be present there only mustard oil and turmeric is given.

¹This has some magical significance. The rice and turmeric roots show any sign of sprouting then, the married life will be happy and never has any difficulty in married life.

Then on the appointed day the bridegroom with the bariatko (friends, relatives and villagers) starts for the bride's house in the afternoon. When they reach the village of the bride, they wait outside the village in a field, and they are cordially welcomed by the bride's father and relatives. Dancing and music were already going on there, tum tums, madals and cymbals being beaten more than ever. The bride wearing a new cloth stands a little apart by the side of the bridegroom. The bridegroom's younger brother, an important personage in the scene, stands on his left side and the whole party stands on the road just at the entrance to the village. A large crowd of village females, each bearing a brass basin containing a lump of coarse molasses and a lota filled with water stand there. Upon the usual greetings being offered which consist of all bending down respectfully and touching the ankles of the happy group, the elder women step forward and each in turn taking a large pinch from the molasses thrusts it first into the bride's mouth with her fingers and thumb, after which she holds the lota of water for the bride to drink from and then pours a little of the water over her feet. The same ceremony is performed on the bridegroom and his brother. The dancing and music are kept up without cessation during this performance and many torches are also lit. After this, three women—the mother, the elder aunt and the younger aunt of the bride—come out of the crowd and take the bridegroom, his brother and the bride away with them into the village followed by other attendant girls and women who amuse themselves with cutting jokes on the blushing bride. All then proceed

to a clean house washed spick and span which the Joghmanjhi of the village has made ready. On its threshold stands a young and graceful maiden with a lighted taper in her hand awaiting their approach all alert and she stands there for an hour after the pair come in. She is generally the younger sister of the bride, in absence of whom her cousin does this function. Here the carriers drop their burdens and after salutation the same cleaning and washing of feet is undergone when they are again taken up and deposited at the next house and this goes on through the whole village.

It is well nigh midnight before all these preliminaries are settled. The bridegroom's father takes with him food for the bariatko who in the meantime have their fill. Then if there be excess of money all the villagers get a share of it. This payment is given on their leaf-plates. In the feast the outcaste serve salt, which is the most important function in the ceremony. After the feast an old Parganait says "From today we have taken them into our society again, all pollution has been washed away. We shall take food in their houses, we shall give them our daughters in marriage and also take their daughters for our sons, etc". Thereupon they dig a small hole in the earth in which they bury a lump of cowdung and put a stone on top, thereby symbolizing that the matter is buried for ever. Thus the man and woman become Santals again. The wedding party then adjourns to the house of the bride. The bride then is put into a basket and her male relations lift her up and the bridegroom is raised upon the shoulder of her eldest brother ; thus he meets her and applies vermilion on her forehead five times with

a horizontal stroke. This part is the most important of the whole function of the marriage ceremony. Then paddy and grain are showered over her.

Then the wedding feast begins. The Jogmanjhi who is in charge of this makes the food ready which consists of goat's flesh, pork, fowl, boiled rice and large earthen pots filled with pachawee. All the villagers, both male and female, young and old, eat to their heart's content.

Next day the bride and bridegroom and a few female relatives of the bride come back to the house of the bridegroom. The female relatives remain there with the bride that night. Next day after a good feast they come back to their village. To all the villagers of the bridegroom's party he gives a feast which ends the marriage ceremony.

Sanga Bapla :—In this form of marriage the divorced woman or widow is married with a widower. This type of marriage may be compared with the Nika system of the Muhamedans. Here the bridegroom and the bride settle the marriage negotiation and mostly the male takes the initiative. In this marriage the bride price is very nominal, a new sari is given to the bride by the bridegroom. On the appointed day of the marriage the bridegroom comes to the bride's house accompanied by his father (if he is alive) and a few co-villagers. The binding ceremony of the Santal marriage is the Sindurdan ; which here is done not by applying Sindur directly on the parting of the hair of bride by the bridegroom, but instead he smears a dimbu flower with vermilion and fixes it in the bride's coiffure. A feast is then arranged.

Kudam Bapla : If a girl becomes pregnant, the young man by whom she becomes so is bound to marry her. The procedure for this kind of marriage is as follows :—

The young man informs the Jogmanjhi of his offence and the girl confesses to the wife of the Jogmanjhi. Then the Jogmanjhi informs the headman of the village and also the parents on both sides. The bridegroom pays twelve rupees and a bull for the bride-price. The Jogmanjhi then takes this couple to the house of the bridegroom's parents with the headman and some other villagers. There they fix the date of the marriage. Then on a fixed day in the house of bridegroom the latter applies vermilion to the forehead of the bride ; the bridegroom at the time of applying vermilion stands facing West and the bride facing East.

Kiring-jawae : If the couple belongs to the same sept, the headman of the village calls for a Panchayat, and the decision of the Panchayat will always be negative i.e. no marriage will take place. The boy's father has to bear the expenses of the marriage of the girl to another man. Then the headman of her village arranges her marriage with a boy from a far off village. Here the bridegroom gets a cow and some money from the father of the guilty a boy and his name is always kept secret. The ceremony is performed by placing the bride on a plate and the bridegroom applies vermilion on the parting of the hair of the bride and a feast is then given to the villagers.

Ghardi-Jawae Marriage : This kind of marriage is resorted to when a girl is the only child of her parents. When a man has minor sons and grown-up daughter

he procures a ghardi-jawae to get help in his agricultural work. When a girl is ugly or deformed and there is no prospect of her being asked in marriage in the ordinary way, this form of marriage takes place. Usually a man seeks a wife for his sons; here it is the opposite. All expenses of marriage are borne by the father of the girl. At an ordinary marriage the bridegroom's friends are called bariatko; here it is the friends of the bride that are called so. In this kind of marriage the bridegroom pays nothing for his bride but lives with his father-in-law and works for him without wages for five years. At the time of marriage the girl's parents give the young man a calf. This becomes his personal property. The girl also gets a calf at the time of marriage. She is further permitted to get "arpa", i.e., reap a few sheaves of paddy for herself. If a man wishes his ghardi-jawae to become his heir this has to be specially arranged and publicly declared and such is done at the time of marriage. When a man procures a ghardi-jawae to get help in his agricultural work, in such cases the girl's father sets aside a bit of land for this ghardi-jawae and helps him to get additional land. When the five years of service are over, the ghardi-jawae is free to depart.

On the appointed day of the marriage the bridegroom with some important persons of his village comes to the house of the bride. As soon as the bridegroom arrives, the father of the bride calls the headman and the jogmanjhi and a few others. In their presence the bridegroom performs the Sindurdan ceremony (vermilion ceremony). A good feast is

then arranged. The bridegroom with his wife lives in his father-in-law's house and helps him in his household and agricultural work.

Apangir Bapla: I have not come across such a marriage during my investigation. Uma Choudhury when she made a survey of Santal manners and customs in the Santal villages of Hazaribagh, got information about the Apangir Bapla. I am here giving the details of the marriage in her words. "Marriage after elopement is known as Apangir bapla. Santal men and women are quite free to meet at fairs or fields. These stray meetings often lead to love marriages. To signify that a man has fallen in love with a girl, he has to give her a flower as a token of this love wherever they meet. If she returns his love she accepts the token. If she does not she ignores it. When both the boy and the girl are thus informally betrothed by themselves they meet at a moonlit dance which is known as Jhumar dance. As the dance goes on the girl talks with the brother of the boy either real or classificatory and the conversation follows with two meanings and suggestions. The boy gradually comes near the girl of his choice and throws flower at her and is allowed to catch her hand. Then they talk between them softly and slowly so that no one knows what goes on between them. If they are satisfied in their talks the boy proposes to marry the girl and the girl in her turn asks him whether he is willing to maintain her. The usual form of reply which the boy gives is that if she obeys him he will maintain her, otherwise he will not. Immediately after Jhumar dance, regular courtship proceeds. This court-

ship period is regarded as the happiest time for both. They meet regularly at some selected place outside the village in a jungle or meadow. Their movements are always kept secret. Gradually the relatives of both the parties come to know what is going on between their son and daughter. They find that the boy and the girl do not return home sometimes for days and nights together. So they have to consider consequences of such courtship between the two and even send men on all directions for them. When it is found out what has been going on between the boy and the girl a Panchayat is called. In this Panchayat the presence of the parents of both the parties along with the headman of the two villages is necessary. Further five important persons of the village are invited. The girl's parents ask the boy why he has eloped with their daughter. The boy's parents in their turn ask the girl why she has consented to go with their boy. Then the boy and the girl have to disclose the whole thing about their courtship before the Panchayat and the two village headmen condemn them for their misbehaviour. They tell them that if they want to live together they have to marry otherwise they will not allow them to live together or to meet each other. If they are agreed to this proposal of marriage all the people present in the assembly immediately make the necessary arrangements for their marriage. In such cases the marriage ceremony is not so elaborate as in the Raebar bapla. Only in the presence of the two village headmen and all the other important people of the Panchayat does the sindradan ceremony take place.

After that the boy has to pay sufficient money as fines to provide a feast for the whole village".

Tunki Dipil Bapla : This type of marriage is performed by poor men. As they have not sufficient money to bear the expenses of the regular marriage (Raibar Bapla) they resort to this type, in which the bride is brought to the house of the bridegroom with a small basket on her head, a few friends and relatives accompany her to her house. The bridegroom in the presence of these persons applies vermilion mark on her head and a feast is then arranged and the couple then live as husband and wife.

Itut Bapla : This is adopted by forward young men who are not quite sure whether the girl they fancy will accept them, and take this means of compelling her to marry. The man taking some vermilion on his fingers watches his opportunity at the fair or on any similar occasion, marks the girl he is in love with on the forehead and claims her as his wife. Doing this he runs away at full speed to escape from the thrashing he may expect at the hands of her relations if he is caught on the spot. In any case the girl's relatives will go to his village and will obtain from the headmen the permission to kill and eat three of the goats of the offender or of his father and a double bride-price must be paid for the girl. The marriage is however legal and if the girl still declines to live with the man, she must be divorced in full form and cannot again be married as a spinster.

¹Uma Chowdhury—Marriage Customs of the Santals—Bulletin of the Department of Anthropology Vol. I No. 1 January, 1952 pp. 104-105.

Nirbolok Bapla : This form may be said to be the female variety of 'Itut'. A girl, who cannot get a man whom she likes in the regular way, takes a pot of rice-beer (pachawee), enters his house and insists upon staying there. They do not adopt any physical force to expel her from the house. It is said to be quite fair and usually effective to throw red pepper on the fire as by inhaling the smoke she is compelled to run away, but if she passes this endurance test without leaving the house, she is held to have won her husband and the family is bound to recognize her.

Divorce : Divorce is a common sequel to Santal marriage and is granted at the wish of either husband or wife. Following are the grounds for which the Santal men and women demand divorce. The husband can demand divorce if his wife is proved to be a witch, or is sexually immoral and if she does not obey him or lives all the time in her father's house. The wife can claim divorce if her husband cannot supply her with sufficient food, clothing, ornaments, etc. Sterility is also an important ground for divorce. The one who wants a divorce is expected to bear the expenses. In case the husband seeks divorce he cannot claim the bride-price originally paid and also has to pay a fine of Rs. 5 and give the woman a piece of cloth. If, on the other hand, it is the wife who demands divorce without just cause, her father has to refund the bride-price to her husband. If adultery is proved against her the co-respondent is called a thief and has to pay Rs. 60 as fine. If the man is guilty, the bride-price is forfeited. The divorce is effected in the presence of the assembled villagers in the following

way : the husband is made to stand facing the sun on one leg (generally the left). He has a cloth round his neck each end of which is held in the hand along with three sal leaves. Then taking the name of Sin-Bonga he tears the sal leaves in token of separation and upsets a brass pot full of water. This is repeated by the wife also.¹

Birth and Naming Ceremony : When the Santal woman becomes pregnant, she and her husband observe certain taboos. The husband during his wife's pregnancy never kills any animal, nor participates in any funeral ceremony and does not come in contact with any dead body. The pregnant woman during the evening very rarely comes out of the house, she never crosses any streamlet, she does not weep when any death occurs of her relations. On the day of the moon-eclipse she does not come out of the room. She should not sit on the verandah with her hair or her cloth hanging down on the courtyard side. All these taboos signify that the Santals have a strong belief that malevolent spirits or witches do mischief to the pregnant women.

The Santals believe that after ten months the women give birth. When the labour pain starts the pregnant woman is confined in a room, which is generally a corner of the house or a portion of the verandah partitioned with bamboo and leaves. At birth, an experienced elderly woman of the village or of the adjoining village officiates as midwife. No one is allowed to remain there except one or two female relatives of the pregnant woman. After birth, the umbilical cord is

¹There is a belief that if the sal leaves are not fully torn or the lota not wholly emptied then the couple must again come together.

cut by the midwife with an arrow by placing a coin beneath it, which is afterwards taken by the midwife. The placenta is then buried in a pit in one corner of the courtyard of the house. Immediately a birth is announced there is a gathering of friends and relations for congratulating the parents. After the birth of a child, the house and the village is considered polluted. So the Santals perform the *Janam Chatiar* ceremony, until this is done it is considered unpropitious to engage in any shikar or hunting expedition or religious ceremonies. The usual day for this ceremony is on the fifth day in the case of a male child and on the third day in the case of a female child. All the male members of the village come to the house of birth, first the village officials are shaved then all the other men present and then the father of the child. Then the midwife brings the child near the barber to cut a few locks of hair from the different parts of the head of the child, which are put in a leaf cup. The midwife then ties two threads to the arrow with which the umbilical cord was cut. All the village officials and other male members go to have their bath in a nearby streamlet. Then the midwife carries the child and together with the mother and the women of the village goes to the bathing place. There, the midwife throws the locks of hair and one of the threads in the water. After bathing they come back to the house. The midwife brings with her the second thread and the arrow, this thread is then smeared with turmeric and tied round the waist of the child.

When the purification has been completed, the men women and children of the village who have assembled at the house receive each a leaf cup full of rice water

with which the leaves of Nim tree (*Melia azadirachta*, L) have been mixed. After this they all take a draught of their home-brewed liquor and depart.

On the fifth day the child is given its name. Should it happen to be a son and heir he takes the name of his grandfather; should he be the second son born, he takes the name of his maternal grandfather; and thus the paternal grandfather's brother for the third boy, the maternal grandfather's brother for the fourth boy and so on. The same procedure is followed for girls, the feminine relations being in the same order from the female side.

Chacho Chhatiar : It is a very important ceremony of the Santals, which enables the individual to take his place in Santal society and participate in its rights, rules and ceremonies. Without this no Santal can be married or cremated; if anybody dies without this ceremony he is buried. There is no age limit for this ceremony though it must precede marriage. Generally the Santal performs this ceremony for several children at the same time.

Mr. O'Malley has given a full description of this ceremony in the District Gazetteer¹ in the following words. "The father brews handi and provides oil and turmeric for the villagers. When the handi is ready he calls the manjhi and paranik in the morning and gives them a drink. They ask him what handi it is, and, after drinking, the headman bids the godet call the villagers together. When they have come the girls of the village anoint the naeke and his wife, who sit

¹L.S.O'Malley—Bengal District Gazetteers (Santal Parganas)
pp. 132-133.

on a mat, with oil and turmeric ; next the kudam naeke and his wife, then the manjhi and his wife and all the officials in the same order as at the janam chhatiar : last of all, all the women are anointed. The handi is now served in leaf cups to the manjhi and paranik and then to the other people ; after which all are ready for further proceedings. They ask how many children the handi is for, and for each child four small leaf cups are given to all those present. Then they ask the father : "How many iri (*Panicum crus-yalli*) and how many ebra (*Setaria Italica*) ears have ripened for you ?" This is a figurative expression for "How many boys and girls have you ?" On receiving an answer they ask again, "Where is the land ?" The father tells them where the namesakes of the children live, whereupon they call for "namesake handi", i.e., beer which the namesakes present have brought with them. The people then sing a special song and dance and drink.

A guru, who in a way officiates for the father of the family, now starts the binti, i.e., a mythical historical recitation. He begins with the creation of the earth and relates the Santal history of mankind, their wanderings, etc., according to tradition, and recounts how their ancestors spread abroad, some of them coming to Sikhar, where the first pargana was Hikim, who said to the people : "Let us settle here ; we have found primeval forest and virgin soil". The ancestors said, "Let us help him ; we will burn and clear jungle, we will live and prosper". Then they came to their present abode and married, cleared jungle and multiplied. Thereupon the guru on behalf of the family enters into a colloquy with the people, in which

inter alia he says, "We implore you to let us be with you to brew and drink beer, to fetch water, to pin leaves together on the day of marriage, the day of chhatiar, the day of cremation. We were like crows, we have become white like paddy birds. You, villagers, be our witnesses". This ends the formal part of the proceedings.

The festival is concluded by further drinking and singing of chhatiar and other songs. It will be seen that there is no special or formal act done by the village people. They are invited for the occasion; the father (or his representative) implores the community to recognize the young ones as participators at the three great social occasions, and the people acknowledge this by drinking handi, the Santal mode of ratification. There is no kind of sacrifice at either janam or chacho chhatiar".

Adoption: Among the Santals to adopt a child is of rare occurrence. Dr. Campbell says they do not practise adoption. Rev. P.O. Bodding is of the opinion that adoption is present among the Santals. I have also heard of one or two instances of adoption in the Damin area of the Santhal Parganas.

If a man takes a second wife and this woman has a boy by a former husband, the man may adopt this boy. He proceeds in the following way: He first informs the village headman, then calls the nearest male relatives of the boy whose consent is necessary. If they agree they say so in the presence of the headman and the villagers of the village where the man, who will adopt the boy, lives. Then the male relatives

of the boy renounce him and declare him henceforth to belong to the new father; it is also declared that the boy shall have no right of inheritance in the property of his natural father. When all this has been done the adopting father fixes a date for the formal adoption of the boy. The villagers of that village on that day behave as at Janam Chhatiar (name-giving ceremony of the Santal child). They shave and drink handi (rice beer). The usual procedure in a Janam Chhatiar is that the officiating midwife tells the assembled people the name of the new-born child; here she does not tell the name of the boy but the sept or sub-sept of the adopting father; henceforth that becomes the sept of the boy. Thereupon they leave the boy to eat the flesh of animals sacrificed to the tribal deities. Henceforward the boy becomes their own.

Bitlaha: It means to outcast a Santal from society. This outcasting takes place by the order of the assembled members of the Panchayat. It is resorted to when a Santal woman indulges in sexual intercourse with either a diku (non-Santal) or with a person of the same sept. If any one commits such an offence the headman of the village in question calls his neighbouring colleagues together and informs them of the matter; if the people hold that the case is not proven, then those who started the rumour are severely punished. If it is proved, the assembly gives an order for outcasting and they proceed to carry it out the day after the annual hunt. The date of this Bitlaha is announced by a man in the market who carries a branch of a Sal tree (*Shorea robusta*) with leaves. The people in the market on seeing him understand the matter and count the leaves

of the branch (each leaf of the branch means a day) because as many leaves as it contains so many days afterwards this bitlaha is to take place. During this operation the Parganait of that bunglow and even the Sub-divisional officer of that district are generally commissioned to superintend so that nothing untoward happens. One such outcasting I saw personally about two years ago at Dumka within the Santal Pargana.

In the early morning of the appointed day the bachelors and other male members of the neighbouring villages with flutes, drums, bows and arrows meet at the end of the village street where the culorit lives. The bachelors compose extempore obscene songs in which he is mentioned by name. Drumming is kept up so terribly that the sound can be heard for miles around. At a sign from the leader the crowd with wild yells and lifted hands holding bows rushes towards the village, drumming and blowing their flutes loudly and singing obscene songs. The women of that village do not remain there; they go away to some other place to keep their prestige.

When the crowd reaches the house of the offender they tie a short charred bit of firewood, a worn-out broom and some used leaf-plates on a long pole of bamboo and fix it at the entrance to the courtyard. Within the courtyard they break the fireplace and all things and even sometimes break the house. Young men in undress desecrate the rooms.

The persons outcasted are not allowed to take food with others, they cannot give their children in marriage within the Santal community. The parents of both sides also would be outcasted, and those who give shelter to these outcasts will be treated like-wise.

Jam Jati : By performing this ceremony an outcasted Santal is accepted back into society. It is done in the following way :—

When both the aggrieved parties are ready to provide the necessary money for the performance of this ceremony they inform the Manjihiharam who again informs the Parganait of the Bunglow, and the latter makes it known to the Parganaits of other neighbouring bungalows. Then a day is fixed for the performance of this ceremony and the person who is to be re-admitted prepares a big feast. Then the outcasted man and woman go out to the end of the village street with a twisted cloth round their necks, and water in a lota. To the Parganaits and the village chiefs the offenders acknowledge their offence and pray to them, "Have pity on us". The Parganaits and the chiefs say "Since you have acknowledged your offence we do now take and carry all that for you". Then the outcasts take a little water and wash their mouths with it and pass the lota round to all the leading men, who do the same. After this they enter the village and the courtyard of the outcasts who personally wash the feet of the leaders of the people. All then sit down in rows to eat, leaf plates being put before them. On the leaf-plates of the parganaits Rs. 10 is put, on the Desmanjhis' plates Rs. 5 and on those of the headmen also Rs. 5.

Disposal of the Dead : When a person is dying they generally keep the doors open, as the Santals prefer to have the spirit of the departed wandering about outside the house than taking a permanent abode inside. This is probably one of the reasons why the Manjihasthan is built, as it affords a residence to the manes of the

departed ; although this Manjhistan is build before the house of the headman of a village yet it seems that the spirits of all deceased villagers are commonly considered to congregate there.

After death, the body is carried on a bedstead by the relatives and villagers who cover the body with a new shroud. When they reach a cross road some parched rice and cotton seeds are scattered about as a charm against the malignant spirits that might throw obstacles in the way. On that cross road they wait for an hour and the women and relations lament over the deceased. They carry the dead body to the bank of a streamlet nearby. The clothes, brass utensils and weapons of the departed are brought with the dead body. These things are sold at half price near the pyre. The pyre is prepared with the wood which is brought from the jungle nearby. Before placing the dead body on the pyre, the heir of the deceased with his face averted and walking backwards inserts a piece of grass between the lips of the dead man and places a silver coin in his hand. The dead body with the bedstead is placed on the funeral pyre and a small chip is taken off the collar-bone and deposited in a new pot and the heir then applies fire to the dead body by placing a piece of burning wood on the face of the corpse. Before setting fire to the body it is covered with a branch and four pieces of wood are put on it. A fowl is taken round the pyre thrice and is finally nailed to the south-west corner pole. After the heir has placed a piece of burning wood on the dead man's face, all the relatives and others present throw a log on the pyre and proceed to kindle it. The people sit at a

distance and watch the body being consumed. The pot in which the bit of the collar-bone is kept, is then buried outside the village. Then they shave and bathe and before they enter the village smear themselves with sal resin. The men who carried the dead man and also those who accompanied the dead to the cremation ground drink handi bought with the money realised from the dead man's articles. Coming back after cremating the body they hang a pot of leaves in the room where the man had breathed his last. In a cup they put some boiled rice and above the rice they place another pot containing fried fish. If the next morning some boiled rice can be seen on the fish then they think the spirit of the departed came and partook of a portion of the rice. But if no rice can be seen then they think that the spirit did not come. In this case they believe that something of the departed is left with them, that is why the spirit did not come.

After five days there is a ceremony called Tel nahan. All the villagers assemble at the dead man's house and shave. Then they go and bathe, the men in one place, the women in another. The men take with them a little earth (used as soap), oilcake, oil, three sal twigs (used as tooth-brushes) and a couple of leaves. The villagers put these at the edge of the water on three separate leaves, and offer all with the left hand first to the dead, then to Pilchu Haram and Pilchu Burhi (first man and woman). The last two are invoked to take the dead man under their care. The Santals keep a little bone to throw in the water of the Damodar river. There is no fixed time for taking the bones to that river. It is the custom of the Santals to wait

until a sufficient number of their relatives have died. Along the river there are several ghats where the relative who has brought the bones offers earth and tooth-brushes to the departed and to Pilchu Haram and Burhi after throwing the bones, etc., into the river. He goes into deep water and facing East dives and while under the water he lets the bones go. The last function is known as Chandan. On the floor of the room where the man breathed his last the eldest son puts a quantity of adwa rice on a plate of Sal-leaves. Then a he-goat is cut by holding the neck over this rice and the blood which falls is mixed with the rice properly. All the members of the house take a little of it taking the name of the departed. Then a great feast is given by the sons of the departed in which all the relatives and villagers join. When this is over the mourners resume their ordinary life, but till then they can neither sacrifice nor use vermilion, nor can marriage or any other ceremony take place in the village.

When a little child or a pregnant woman dies the Santals bury the corpse. After the death the female relatives and villagers, taking a little mustard oil and turmeric (powdered), rub it on dead body covering it with a new cloth, all utensils and other objects of the departed being carried to the burial ground. When they reach the destination they place the bedstead in such a way that the head of the dead body points towards the South. A branch of the Mowah tree is put on the bed near the head. The pit is made North to South. All those who accompany the dead do not forget to take a pot with water from the house of the departed and a rupee. They then, taking a little water from the

pit and the rupee touch the hands, feet and mouth of the corpse. They place the body within the grave ; all those who are present there take a little earth and put it on the mouth of the dead uttering the following words :

Ma taba khaṇ ṭahi khaṇad ala khaṇem bagarana
Onata nsa sanam ko hasala amam kânā

Alaho Jaman bis bādala taken ma

(English translation)

You have been separated from us that is why I am giving a little earth to you. Please see that we may remain in good health.

Then they cover the grave with earth. The relatives take a little earth from the burial ground and a nail from the dead body, they then throw these into the Damodar river. In the case of the pregnant woman they insert an iron nail in the sole of the foot. The reason of this is that Churinbhut may not come out from the grave.

CHAPTER IV

RELIGION

Ceremonies and Festivals

The proper analysis of the religion of the Santals is as difficult as it is necessary for the history of succession of religious ideas in India and perhaps in the whole world. If there is any culture which still carries on the impress of the underlying philosophic speculation and order of thought that was widespread in India prior to the rise of the Dravidian culture, it was very likely the belief and social order of the Pre-Dravidian Santals.

In the study of the hypothetical development of religious ideas, the Santals figure prominently in the scheme of evolution. Thus Clodd cites them as an example of beliefs proceeding animism. He says :

'This is very interesting considering the sway of the ideas of impersonal universal spirit or *mana* so widely prevalent amongst the Austric-speaking people of which the Santals are a western peripheral branch. It is a subject for future enquiry, whether there had been any influence of Vedic or Upanishadic speculations of the universal supreme energy carried by these people in the migration eastward. There is a calling back of the shade of the departed common amongst those pre-Dravidian tribes of Chota-Nagpur which recalls the Vedic passages (*Rigveda, Mandal 10*)'.

The enquiries of Pater W. Schmidt, probably inspired by the subconscious Christian idea of an early revelation to primitive man of the idea of a supreme personal god, have led to the finding of many instances of the primitive high god in the first cultural strata of

food-gatherers. The Santals fall in the category of the primary or secondary cultural strata in the scheme of Pater Schmidt. The idea of a supreme being or a personal high-god is well known amongst the primitive tribes of Central Provinces, Chota-Nagpur and Assam. Thus according to Dalton, he is called Boro by the Kharias, Ote Boram or Sing Bonga by the Hos, Dula Deb or Pharsi Pen by the Gonds, Bura Penu or Bela Penu by the Khonds. In Assam, he is known as the Father by the Abors, as old bearded Rishi Salgong residing in heaven by the Garos, as the creator Pa-thian amongst the Kukis and the great god Arnam Kethe amongst the Mikirs. The enquiries of Sir James Frazer in his "Worship of Nature" have led him to cite most of the Chota-Nagpur tribes as devotees of the Sun god as the supreme being. Rai Bahadur S.C. Roy thus has analysed the Dharmes or Biri Bela of the Oraons as Sun god. Similarly, according to him, the Ber Pitia or Ber Chichha of the Malers is the Sun god and so also is the Bhagavan of the Korwas. The Bur a Penu of the Khonds is also the God of light.

Coming now to the Santals we find almost all the authorities agreeing in conceding to them the idea of a supreme being. But there is a great diversity of opinion as to what he is called. According to Dalton, he is Sing Bonga amongst the Santals of Chota-Nagpur. Risley (Appendix VII, p. 446, People of India), on the authority of Skrefsurd, says that the supreme deity is called Thakur. E.G. Man, working in Orissa about fifty years ago, gives (Santhal and Santhalia, Chapter VI) the name of the supreme being of the Santals as Chando or Chando Bonga. Bompas (P. 402, Folklore of the Santal Parganas) in one of his folklores

describes that Thakur Baba had made everything very convenient for mankind, etc. Rev. Bodding, who is the most recent and exhaustive worker on Santal beliefs and customs specially in the Mohulpaharia area in Santal Parganas, gives the name as Chando, 'the creator, the only one who gives and restores life' (Studies in Santal Medicine and Connected Folklore). Bodding further says that this name is often confounded with Cando the Sun. My own personal enquiries in the villages in Katikund within Dumka Damin and in the village on the base of the Zalway Hill, in Deoghar Sub-division, in the year 1932, elicited the information that the general name for God is Kando and the name for the Sun in that area is Sin Kando and for the moon Ninda Kando.

The Santal lives in harmony with the surroundings, having no temple and stooping to no idol made by his hand for the purpose of worship. It may be said that the Santal lives like a child of nature in rapport with all his surroundings, the hill, the dale, the spring or the grove being the objects of his reverential fear. They are the abodes of a supreme supernatural energy or the departmental spirits or the bongas. The bongas are friendly beings at times, but most often mischievous and naughty elves playing mischievous pranks with men, bringing them trouble and causing misery at times. These bongas are supposed at times to harass humanity, to eat people (as the Santals express it) because they are hungry, displeased, hurt or envious, and this eating is the devouring of health and substance of the person exposed to the displeasure of the spirits. The spirits may further be used by, or themselves use, the witches as medium.

Thus in religion proper the main attitude of Santal Society towards the supernatural, is one of reverential fear in the presence of certain mysterious supernatural powers and beings and dependence on and propitiation to and prayerful submission to them, and the result expected is the averting of the ill-will and securing the good will of the supernatural beings and good luck to man in crops and cattle, health and progeny.

The Santal religion is also not a little concerned with ancestral and certain other disembodied souls and Nature-spirits and deities. The rites employed to establish relations with them are mainly supplications and prayers, offerings of sacrifices and the ceremonial sharing of sacrificial food besides certain special observances and taboos.

The Santal believe that the supernatural influence is not often inimical and evil. Their idea is that there is no possibility of malevolent influence being turned to a benevolent or good one, the only practical question for them is how to stop it and, in the case of witches, how to stop and punish it. Bongas and witches know how to do evil to people but more often than not also how to do them good.

The Santal religion in its social aspect is essentially a tribal matter and has helped to strengthen the social unity and quicken the sense of social responsibility, and his concept of righteousness is bound up with his social or tribal consciousness. As the Santal Society has not yet got much beyond a limited tribal consciousness his conception of righteousness is not concerned with the essential or absolute standard of righteousness of things.

One of the aspects of Santal religion which could be more observed today in the social side rather than any religious belief and ceremonial, is the definite association of some of the exogamous clans and sub-clans with names of plants, trees and some animals, generally termed as totemism. Thus of the total of twelve clans nine are totemic and of the seventy-four sub-clans twenty-two are totemic, which are as follows :

Clans	Totems	Clans	Totems
Besra	Hawk	Hasdak	Wild-goose
Hembram	Betat-palm	Marndi	Grass
Murmu	Nilgai	Saren	Constellation Pleiades
Pauria	Pigeon	Chore	Lizard
Bedea	Sheep		
Sub-Clans	Totems	Sub-Clans	Totems
Kahu	Crow	Kara	Buffalo
Chilbindha	Eagle-slayer	Jihu	Bird
Gua	Areca-nut	Kachua	Tortoise
Nag.	Cobra	Somal	Deer
Buru. birit.	Hill	Kekra	Crab
Roht.	Panjaun tree	Bear	Fish
Ganr.	Fort	Handi	Earthen-vessel
Sikiya	Chain	Barchi	Spear-men.
Mundu or Badar	Dense Jungle	Sidup	Bundle of straw
Agaria	Charcoal-burner	Dantela	Breed pigs with large tusks for sacrificial purposes.
Lat	Bake meat in a leaf platter.		
Reh-Lutur.	Ear-pierced.		

None of these appear to be associated with the idea of culture heroes as amongst the Amerindians. The folk-lore shows indeed some stories centering round the plants (betel-palm, Panjaun tree, Sabai grass) and animals (tiger, jackal, leopard, crab). Besides these some of the clans' names centre round industrial objects and articles of usefulness such as chain, earthen vessel, etc. These would be more in line with a belief in objects possessing mana and venerated as such and gradually getting associated with exogamous subdivisions which might have had a hand in the invention or diffusion of those useful objects. There is no seasonal recurring ceremonial round these objects meant for the preservation or propogation of the animals or plants venerated as ancestors, as in Australia. There is indeed some taboo in the use by the particular sub-clan of the plant and animal venerated as its ancestor. The animal and plant thus venerated are taboo to the clans; none can hunt it, nor can they partake of its flesh. But because of the observation of this taboo the Santals are in no sense plant and animal worshippers. It seems that their idea of bongas inhabiting all creeks and corners of nature, has been extended only to the region of certain animals and plants. In the folklore the bongas are generally represented as using seats of hooded cobras and certain serpents are naturally venerated as clan-ancestors; on the other hand, the common water-snake (Dhamna) is eaten by almost all the Santals. Of the animals not eaten by the Santals all are not associated with clan-names such as the Frog, Gibbon, Elephant, Dog, etc.

If the religion of the Santals may thus be described as veneration of a Supreme Being and reverential awe

or fear of certain good or evil spirits surrounding him, his practical life may be said to centre round certain other pseudo-scientific or magical rites and ceremonies. He is constantly trying to dodge, control or press into service the innumerable mischievous spirits (bongas, etc.) and forces (tejo, etc.) that bring all the misery and disaster in life.

Thus in magic, the attitude of the Santal is mainly one of the defiance of control and domination over unseen mysterious powers and the result intended is the expulsion of evil or compulsion of natural or supernatural forces and powers in the production of desired favourable conditions or results. The Santal magic referred to above, is primarily concerned with mysterious impersonal forces and powers residing mostly in natural or artificial objects and the instruments employed in dealing with them are principally charms and spells, adjurations and incantations as also certain traditional observances and taboos.

As has been beautifully and lucidly explained by Rai Bahadur Roy in the case of the Oraons, the Santals attitude to religion and magic is not mutually exclusive but complementary and supplementary. His magical practices are the result or part of his science and constitute his applied pseudo-science. They never crowd out those simple religious rites of veneration to and propitiation of, the mysterious author of our being. But whereas in the daily affairs of life of the civilized man the scientific physician is at hand, the Santal, like other primitive people, has recourse to his Medicine-man and Bonga-doctor. These latter come with their

knowledge of herbs as well as the mysterious processes of evil caused by malevolent natural or human agencies and profess to cure the Santal of his daily ailments and afflictions. Thus magic ritualism is the speciality of Santal society and centre of the individual's life, whereas the religious ceremonials are more or less communal group affairs. The complicated cross section of the Santal belief would be well studied in the functional differentiation of the communal priest, the Ato naeke, his assistant, Kudam naeke, and Dehri (hunt-priest), the herbalist medicine-man, the Bonga-doctor or Ojha and the witch-detector on Jan-guru.

Different types of religious functionaires, medicine-man, etc.

Amongst the Santals working in the Daminiko area where they are closely concentrated, it was curious to notice many functionaries named as Ojha, Janguru, Kamruguru, Raranic, Ato-Naike, Kudam Naike and Dehri. The Santal carefully draws a distinction between the officers of his social ceremonials, the high priests of the community and the specialists who may be described in modern terms as the practising physicians and the mental disease experts, the last of course not being psychopaths but masters of spiritualist seances. The sorcerer who practises evil eye and witchcraft is also sharply distinguished.

Studying the other allied tribes nearby we find mostly a distinction between the social functionary in charge of religious festivals sharply distinguished from the spirit-doctor generally possessing second sight. The term for the priest is Naya amongst the Birhors and Pahan amongst the Mundas and Oraons. The word Naya as also Naike may have some connection with the

Hindi word Nayak or leader, a term often used in the old Hindu army for lieutenants. Rai Bahadur Roy shows the Birhor Naya in a plate as Raja or chief¹. Similarly, the word Pahan may be equated with the Hindi Pradhan or chief. These indicate the power of the religious functionary in the state. It cannot be said, at least from the study of the Chota-Nagpur tribes as well as those of Assam, that the medicine-man developed into the king, for in both the areas we find the temporal chief superior in authority to the ecclesiastic functionary. But the terms themselves show that the religious functionary is given a considerable recognition in temporal status. It is possible Hindu missionaries in bygone days might have exercised temporal and spiritual authority from which these tribes again recovered, re-establishing their own indigenous superiority of their secular chief or headman.

The term for the spirit-doctor with second sight is Mati among most of the primitive tribes of Chota-Nagpur. The Mundas, the Bihors and the Oraons all call their spirit-doctor Mati, the Hos of Seraikella call him Ojha². The Santal term Ojha has rightly been objected to by Rev. P.O. Bodding as a Hindi loan word derived from Upadhyaya³. But we think he goes too far when he says that the whole system of Ojhaism is derived from the Hindus. Similar practices in Hindu society may be sometimes detected in the lowest stratum and also under even the mystic Tantric ritual. They

¹S.C. Roy's *The Birhor*, p. 340, Plate XXVIII.

²A Chatterjee and T. Das, *Hos of Seraikella*, part I p. 28.

³Rev. P.O. Bodding, *Studies in Santal disease and Connected Folklore*, part I.

have been always branded in Hindu scriptures as practices of the lowest order, a sort of getting power over ghosts, pisaches and bhuts. The Gita¹ calls the worshippers of the pretis and bhuts as tamasic. Thus they are to be looked upon as survival of a pre-Dravidian stage of culture in Hindu Society. From the widespread occurrence of the word Mati it would seem that the Santals have lost their own original term and adopted a Hindi loan word as they possibly did in the case of the word for the supreme being, Thakur. The tendency to change the name can be traced amongst the Oraons due to a recent semi-Hindu and semi-aboriginal religious revival movement known as the Bhagat, comparable to the similar Kharwar movement amongst the Santals. The Mati is called Bhagat as the most dignified term for a Baisnab devotee. A change of outlook has also taken place in making the spirits no longer malevolent and the aspect of mercy and grace under Baisnab influence have been emphasised, comparable to the changing of many of the pagan gods of Europe into Roman Catholic patron saints.

Hunting being one of the most absorbing occupation of all these tribes a special functionary for hunting occasions is quite natural. Amongst the Santals the Dehri still maintains his own; amongst the Bihors the Diguar or Kotowar has sunk to the position of an assistant to the priest Naya.

यजन्ते सात्विका देवान् यक्षरक्षानि राजसाः ।
प्रेतान् भूतगणान्श्चान्ये यजन्ते तामसा जनाः ॥

¹Chapter 17, Verse No. 4.

(a) **Raranic or Herb-Doctor.**

In his individual ailments the Santal recognises the disease to be due to either of the three causes as mentioned by Dr. Clements,¹ such as :

1. Natural causes,
2. Human agencies,
3. Supernatural agencies,

Naturally different functionaries are called upon to remedy the different items.

The man called upon to treat the diseases due to natural cause is the Raranic who comes nearest to our modern practising physician. He is a master of many herbs and simples. Like the modern physician he has faith in his drugs and herbs and looks askance on the practices of the spirit doctor or Ojha and his hocus-pocus. He learns his trade as an apprentice to an old practising Raranic who jealously guards the secrets of his herbs and prescriptions. They say that their knowledge is derived mostly by observation of animals attacked with disease and the way these cure themselves. He follows the diseased animal in the jungle and marks the herbs or roots. From the encyclopaedic list of prescriptions collected by Rev. P.O. Bodding and Mrs. Bodding, M.B., one would infer that the Santal medical treatment has not been entirely conservative. There are indeed several items which could be taken as survival of primitive prescriptions such as the use of animal refuse or insect preparation, reminding us of the cauldron of Macbeth's

¹Forrest E. Clement's *Primitive Concepts of Disease*, University of California Publications in American Archaeology and Ethnology, p. 186, Volume 32, No. 2, pp. 185, 252, year 1932.

witches. But the majority comprises of herbs and sometimes also minerals, leading one to suspect strongly the influence of Hindu indigenous Kaviraji treatment which had been universally adopted (ancient Hindu medicinal treatises having been translated into Arabic and passed through it into mediaeval European pharmacopoeia). Thus for instance the use of Rasa-Sindur is distinctly Hindu, the word Rasa being the old Hindu word for a form of preparation of mercury. Similarly, some names such as Kababchini or tobacco-water show post-Mahomedan adoption.

It may be mentioned here that there is a seasonal ceremonial called Ranjagao for the vitalising or blessing of medicinal plants in general, at the time of the autumnal Dasai parab. This has no reference to any special ingredients but increases the effectiveness of medicine in general. There are certain instructions given as to the time and mode.

The method of diagnosis, generally followed, is by feeling the pulse as amongst the Hindu Kavirajes.

(b) **Tejo Theory**

The Santal calls in the Rarantic for diseases due to natural causes. But he also has a theory of disease which in his scientific viewpoint is as natural a cause as infection caused by bacteria. But we can look upon it as an agency which is natural and yet supernatural and sometimes also diffused with human agency. According to them diseases would be caused by a tejo which may be large or very microscopic. These tejos are located in different parts of the body, some at the root of the nose and some in different parts of the body.

Rev. Bodding gives a detailed description of this theory,¹ where he describes how there is a belief of tejo causing leprosy or hydrophobia, etc., how these tejos enter the body through food, etc. The tejo germs are often believed to be collected by witches for spreading disease amongst people. In the first place naturally the herbalist tries his drugs but this failing the witch-doctor is called.

The Tejo theory of disease falls in line with what Dr. Clements² calls disease-object intrusion. Dr. Clements in his study has apparently left out (at least he has not specifically mentioned) the important pre-Dravidian tribes of Chota-Nagpur such as Santals, Hos, Mundas, etc., and thus in his distribution map No. 2 this portion of India is not shaded as it ought to have been. He has shown this idea to be almost universal in the New World and extended up to Siberia. Another area is shown in South-Eastern Asia and the Santal under consideration would show a continuous distribution of this from Chota-Nagpur to the Pacific area. Other centres in Europe, Western Asia and Africa are recorded as being capable of tentative connections with the area of the Santal and South-Eastern Asia. The tejo concept of the Santal is identical with the disease-object intrusion concept in other areas. According to Dr. Clements (to whom the Santal area is unknown) "the criterion is the actual presence in the body of a tangible, supposedly pathogenic substance. Now although the exact nature of this substance varies considerably, such

¹Rev. P.O. Bodding, *Studies in Santal Disease and connected Folklore*, Part I, pp. 6-8 *Memoirs of the A.S.B.*, Vol. X, No. 1, pp. 1-132.

²Dr. Clements, *op. cit.*, p. 209.

variation is quite haphazard. That is to say, there is no regional differentiation, the most common intruders being small pebbles, bits of leather, sticks, little bones, hairs, coagulated blood, insects, and even small animals.¹ The idea of dental diseases due to worms in the teeth is not only known in the Santal area but is common in Bengal and perhaps other parts of India, and is treated in India generally by wandering gypsies called 'Bedia' who might have been a distributing agency of this idea in other parts of the Old World. The distribution of the disease-object intrusion concepts in South-Eastern Asia, and perhaps in Western Asia also, may be centered in India if we take the whole as a continuous area of which information has not been collected from some parts of Persia. The old Hindu theory of fever (Jvara) is that it is brought about by a intruding disease-demon (Jvarasur) which finds its way into the body of the afflicted through a disease-object. Could it be suggested that the disease-object intrusion idea was taken up by the Hindu from an earlier surviving primitive concept and incorporated into the systematised medical treatment through which it diffused to Western Asia on the one hand and Indonesia on the other? More knowledge of Chinese and Indian mutual influences on the medical systems of both countries might bridge the gulf between the areas of South-Eastern Asia and Ainu-Sibero-American zone.

(c) Spirit Intrusion and Witchery.

There is strong belief almost universal amongst the Santals that disease is also caused by the presence in the body of a malevolent bonga, i.e., evil spirits.

¹ Dr. F.E. Clements, *op. cit.*, p. 211.

ghost or demon. Dr. Clements has drawn rightly a distinction between a spirit intrusion and spirit possession.¹ Amongst the Santals the most respected person would be the Ojha who would work for good, being 'possessed' by a spirit. Whereas all the evils and sorceries are due in their belief to the intrusion of the bongas, often worked to that effect by that most hated and feared human set, the dains or witches. It is further curious to observe how the concepts of sorcery, breach of taboo, and bonga-intrusion have become closely interwoven with each other in Santal thought. The spirit or bonga-intrusion is generally aided by the human agency of the sorceress—but the witch of the intruding malevolent bonga would be powerless to offend unless the victim had committed some breach of taboo. The witch-doctor who is called in aid of the diseased, first of all enquiries carefully about the conduct of the patient so as to find out the nature of the breach of the taboo which has enabled the evil bonga to intrude and then with the help of expiatory rites and superior spirit-aid he drives away the intruding evil bonga.

Spirit intrusion, according to Dr. Clements, is probably considerably later than disease-object intrusion and had undergone considerable diffusion before the full Neolithic period of Western Asia. Clements has further shown that belief in disease causing sorcery is distributed to the ends of the earth. It is of almost universal occurrence in the Old World and extends from the north to the south even in the New World. The basic idea has been suggested to be possibly due to the "Elementargedanken" of Bastian.

¹ Dr. Clements, *op. cit.*, pp. 216-225.

The mechanism of sorcery in the area is either by magic as amongst the Andamanese or by shooting a magic bow or 'ban' into the victim or extracting some internal parts of the victim as amongst the Australians.

Sorcery in the Santal area, according to Bompas, is practised by forms of magic as amongst the Andamanese.¹ The District Gazetteer records how the witches draw the picture of a person to be harmed and the image is then maltreated or symbolically killed by the process of imitative magic. They also would bury tufts of hair with vermillion or sindur which being in contact with the victim's body are subjected to a process of contagious magic and the victim is expected to fall ill.²

Similarly, on the authority of Bompas, we know that supernatural agencies or malevolent bongas are directed by witches to kill a man on a certain day, or the witches bring about misfortune on other men by ordering their bonga husband to do so and nagging them on till they commit mischief. Amongst the Birhors, Rai Bahadur Roy records how the familiar spirit is directed towards the victim's house towards which the witch throws some rice. The Oraon *modus operandi* of witchery as recorded so fully by Rai Bahadur Roy brings this area more in line with Australian practices. The employment of the magic arrow or 'ban' is a belief widely distributed in North Eastern India. The magical extraction of the victim's vital organs which among the Australians is the kidney fat, is amongst the

¹Bompas, *Folklore of the Santal Parganas*, p. 429.

²Bengal District Gazetteer Santal Parganas, p. 123.

Oraons believed to be the heart, whilst amongst the Santals it is supposed to be the liver as our informant told us. Bompas also records an incident where a witch was surprised while extracting the liver from a body in order to eat it.¹

Witchery through the evil eye is a belief rampant not only amongst the Santals but amongst other more cultured people of North-East India. It is also found amongst the Birhors, Hos and Oraons.

It is curious to observe how, though the Oraons have both male and female wizards and witches, the Santals ascribe this evil only to women. Their tradition, as recorded by Bompas, fully brings it out :

"Once upon a time Marang Buru (principal diety) decided that he would teach men witchcraft. In those days there was a place at which men used to assemble to meet Marang Buru and hold council with him, but they only heard his voice and never saw his face. One day at the assembly when they met Marang Buru he told them to come to him in their best and cleanest clothes for he would teach them witchcraft. All then went home and told their wives to wash their clothes well against the fixed day as they were going to Marang Buru to learn witchcraft. All the women made a plot to learn it by making their husbands drunk on the appointed day and they then wearing the dress of the males went off to Marang Buru to learn witchcraft in place of their husbands. They then went to Marang

¹C.H. Bompas, pp. cit., p. 421.

²C.H. Bompas, op. cit., p. 422.

Buru but Marang Buru did not detect the imposture and taught them witchcraft. After their return however their husbands came back to their senses and they at once went to Marang Buru to learn witchcraft. Marang Buru said "I taught it all to you this morning, what makes you come again." They were astonished at this and protested that they had not been to him at all that morning. Marang Buru said, 'Then you must have told your wives what I forbade you.' They gave an answer in the affirmative. Marang Buru then taught the science of *Ojhaism* and *Jan* in order that they might have some advantage over their wives, and be able to overawe them. This is why only women are witches and men are *Ojhas* and *Jan-guru*."

Women, who are witches, of several neighbouring villages meet under some trees in a secluded place at some distance from human habitation generally on a Sunday at dead of night of a new moon. There, it is said, they strip themselves of their clothes and wear only the fringes of old brooms made of wild grass suspended from a girdle round their waists. Thus arranged the naked women hold the witches' dance. They have their peculiar secret songs and mantras, perform sacrifices and also try to kill people by magic very much in the same way as the old witches of Europe. It is particularly on the night of *Amawasa* (new moon), in the month of Kartic (October-November) that these witches' dances are celebrated with special eclat. Large companies of witches, it is said, move about that night and people are afraid of stirring out of their houses at a late hour that night. New girls are initiated on that night into the

mysteries of witchcraft. When girls are initiated into witchcraft they are taken away by force, and are taken to all the most powerful *bongas* in succession, and taught to invoke them. They are also taught *mantras* and songs and by degrees they cease to be afraid. The beginner is made to come out of the house with a lamp in her hand and a broom tied round her waist. She is then conducted to the great *bongas*, one of whom approves of her and when all have agreed she is married to that *bonga*. After this she can also marry a man in the usual way. When the girl has learnt everything she is made to take her *Sidatang* (degree) by supposedly taking out a man's liver and cooking it with rice in a new pot; then she and the young woman who is initiating her, eat the feast together; a woman who has eaten one such stew is said to be completely proficient and can never forget what she learnt. If any girl refuses to take the final step and will not eat human flesh she is caused to turn mad or commit suicide. Those however who have once eaten human flesh acquire a craving for it.

Should any outsider happen to come their way during these dances and sacrifices, the stranger is challenged and if he be found to be a mere wayfarer and not an inquisitive spy, he is warned on pain of death not to speak to any one of what he may have seen or heard. On his promising not to utter a word about it he is permitted to depart. Should he prove faithless, it is said, he is sure to be killed by magic. I am citing below a story about this from Bompas (Folklore of the Santal Parganas).

In the village of Mohulpahari there was a youth named Jebra. One night when he was coming back

very late he met with a crowd of witches standing under a hollow Mowah tree.

He managed to struggle free and run away. Two days after this those witches caused him to fall from a tree and break his arm. *Ojhas* failed to cure him. The arm stiffened and maggots formed and in a few days Jebra became speechless and died.

How strong the belief of witchery amongst the Santals is even today can be easily judged from the following case of actual witch-murder reminding us of England and Europe, a few centuries ago.

A Santal of the name of Mangal Soren of the village of Bijapur, in the district of Santal Parganas, murdered a Santali woman of the name of Gaura Murmu believing her to be a witch who had caused the death of Rajam a Santali, through her witchcraft. The case was heard at the Patna High Court by Justices Kulwant Sahay and Sir T. S. Macpherson on 5th January, 1933. He (Mangal Soren) was convicted and sentenced to death.¹

Spirit Doctor—the Santal Ojha

A type of Shamanism is present in full swing amongst the Santals though the authority of the headman is always respected. The Shamans among the Santals have degenerated into mere physicians with higher types of knowledge which in its theory entails communication and, partly, control of the supernatural world. Thus when the herbal doctor fails, men with knowledge of divination and favoured

1. Reported in a Calcutta daily, paper *Amrita Bazar Patrika* 7th Jan. 1933.

by bongas are called in. There is no female Shaman as the female with supernatural power is always looked upon as wicked, malevolent and is persecuted as a witch. So it is to pit his higher knowledge against the wicked machinations of the witches that the *Jan guru* or *ojhas* are called who thus are important social functionaries curing individuals of their constant depression due to fear of sorcery and the evil eye or acting as village mental sanitation officials. Thus these Santal medicine-men, soothsayers and masters of incantations have to work hand in hand with the chiefs.

The name *ojha*, which the Santal uses, is not a Santal word; it is a Hindi word, used for diviner, enchanter, sorcerer, magician, etc. The word is derived from Sanskrit. The Santal has borrowed this word from the Hindi-speaking people. Rev. P.O. Bodding is of opinion that the Santal has adopted this exorcism from the Hindi-speaking people. His argument in favour of it is that the work of a Santal *ojha* in nature partly resembles that of the Hindu *ojha* and the special *bongas* invoked by the Santal *ojhas* all have names of Hindu origin in addition to their special *bongas*. But a tribe which believes so much in spirits (both malevolent and benevolent) must have some method of propitiation of those spirits as is usual among almost all the primitive tribes of the world.

The *ojha* is also a physician. The difference between the herbal doctors and the *ojha* lies in the fact that the former gives only medicine whilst the latter in addition to giving medicine tries to drive away the disease by magic incantations, etc., by the assistance of his special *bongas* whom he knows how to force to

work. The *ojha* also professes to know how to find out and deal with the possible supernatural powers at work.

The *ojha* first feels the pulse,¹ sees the tongue of the patient and after having diagnosed the case he tries to drive away the complaint by uttering magical formulas or singing *jharui* songs over the patient. These mantras and *jharuis* differ in every disease.² After uttering the mantras the *ojha* blows over the patient commencing at the head and finishing downwards and towards the back. When the *mantras* or *jharuis* or both have no effect, as they naturally never have in cases of disease, the next thing the *ojha* will do is to call for Sal leaves and a little mustard oil (which the Santals call Sunumbonga, lit. oil offering). With these he verifies the correctness of his diagnosis arrived at by feeling the pulse and seeing the tongue, etc. Having done this he then gives necessary instructions as regards food and treatment and himself brings or orders the ingredients wanted for the medicine to be given. The *ojha* is very particular not to divulge the secrets of his profession. Once in the Sundar Pahar village within Godda Damin in Santal Parganas a little boy was ill. The *ojha* of that village was called by the father of that boy to see and give him necessary medicine. He brought the root of a tree from the jungle and gave the boy the juice of that root as a cure. I asked the *ojha* the name of

¹According to their idea if the pulse comes towards the thumb or index-finger it is a sign that *orak bongas* (house bongas) are hungry. If the pulse comes towards the middle finger the *abge bongas* (tutelary bongas) are hungry, if towards the ring or little finger a *bonga* of the field or outskirts is at work.

²Rev. P. O. Bodding, op. cit., pp. 1-32.

the tree but he never divulged the name of the ingredients of his medicines to me in spite of my repeated request. If the patient is not cured they call in some other more competent *ojha* from another distant village. Sometimes the *ojha* takes other means to detect the disease and the name of the *bonga* who is making the mischief. This the *ojha* does by means of a twig of Sirom broom and drawing certain squares on the earth. (This is called "Tarik" by the Santal).

The *ojha* adopts the following methods to cure the disease of the patient :

(1) *Adwa Chawla* and Bul mayam.

(2) Disease localised at one point of the body and the evil cured by biting and sucking, i.e., by sucking out the intruding disease object.

(3) *Bongas* removed by digging.

(4) *Bongas* exorcised.

(5) Medicine administered.

How a Santal becomes an *ojha* : The method of initiation :

Among the Santals two kinds of *ojhas* can be seen : those who learn for pleasure's sake and those who learn seriously and earnestly. In the case of the first no initiations are required after the learning is over, whereas in the second, initiation is the essential part of the learning. To become an *ojha* (both professional and amateur) one has to be a disciple under an expert *ojha*. The first course commences in the middle of Jaishtha (May and June), their first sitting being on a Sunday or in some cases on a Friday. Every day they come to the house of the guru after taking their meals. They take their seat in the courtyard of the guru's house. In the

courtyard there is an elevated place, square, or rectangular, the size generally being $1\frac{1}{2}' \times 1\frac{1}{2}' \times 1'$. It is made of earth, and a *Tulsi* (*Ocimum Sanctum* L.) plant is planted in the centre of the mound over which a shed is erected. The shed is so large that it can easily accommodate 10 to 12 persons. The shed is erected by the unmarried disciples, married ones have nothing to do with the erection of the shed. The posts of this shed are of sal wood. In the centre of the shed a hen's egg and a chir sakom (a thin kind of iron wristlet or arm ornament) are kept for preventing witches from molesting them. The course lasts for four months. A woman cannot be an *ojha*. The first act of the *ojha* is what is called *Akhra rara* which means performing the opening ceremony, to ensure that all may go well and without any hindrance. The first evening the disciples bring along with them some *sindur* which is given to the *guru*. In five different places in the courtyard the *ojha* makes vermilion marks in the name of the following five different *bongas* :—

- (1) Kamru guru (the reputed first teacher of *ojha* science to the Santals),
- (2) Sin *Bonga* (the sun),
- (3) Kali mai (the goddess Durga),
- (4) Dibi mai (the goddess Durga),
- (5) Ganga mai (the Ganges goddess).

The following invocation is offered to all of them by him after changing the names of the *Bongas* :

“Nokoe, Kamru guru (or, as the case may be, Serma Sin Thakur, etc.) amintikawam kana; nokoe cela korako

durup akana ; ado ninda nuta ko kijuka calakoko; tobe badi bairi noko cela alo bare lagaoako ma alo jemon hoe husit, tatka birki hoyok ma ; nae napae bareko hijuk calak mako !"

(English Translation).

"Here you see, Kamru guru, I am making a mark for thee ; here, you see, disciples are sitting ; they will come and go at night in darkness ; then may malevolence and enmity not come in contact with these disciples ; may there be no spell of an evil eye, no sudden fright ; in perfect safety may they come and go."¹

After having invoked the *bongas*, the *guru* utters the opening mantra which is as follows :

"Akhra khollom, makra kholo, pir khollo, ke khollom ? Guru khollo, guru gia; maekhollo khollom siri Kahri gia Kamru dohoe khollo".

(English Translation).

"I have opened the place of performance, I have opened the site of performance. I have set free the stools to sit on. Who has set free (or opened)? The *guru* has set free, by the guru's knowledge ; the mother (likely Kali) has set free ; I have opened by knowledge of Sri Kahri, by the grace of Kamru I have opened."²

When these preliminaries (opening ceremonies) have been gone through all is ready for the commencement of teaching.

¹P. O. Bodding, op. cit., p. 47.

²Rev. P. O. Bodding, op. cit., p. 48.

The course is as follows :

The Course for learning mantras : (1) *Mantra* to drive away disease as the supposed supernatural cause of any disease. The *Mantras* are different for different diseases.

(2) *Jharui* is also different for the different cases, and used only in connection with certain complaints; the *Jharui* is sung in a special melody that differs somewhat according to the words; the disciple has to learn the words, the melody and the manner of application.

(3) The songs to be used at the *Dasae daran*, the dancing and begging wandering, when the course is finished.

(4) The special dances and play-acting and how to be possessed (rum).

(5) Medicines to be used when *Mantra* or *Jharui* or both are ineffective.

The details of these five courses have been fully discussed by Rev. P.O. Bodding in his *Studies of Santal Medicines and connected folklores* (Memoirs of Asiatic Society of Bengal, Vol.X, No. 1, pp. 1-132).

In order to become a full-fledged *ojha* it is necessary to receive *sid* (a Santali word which means initiation).

The course of instruction given above is brought to its conclusion shortly before the *Dasae daran*. Only a very few of the disciples receive *sid*, or care to go so far. It is not the case that the *ojha*, under whom they get their training, declares that a disciple is now ripe for getting initiation, but the disciple requests the *ojha*

for his final touch. The *ojha* agrees if he thinks that he may be able to work independently. The *ojha* then demands the following things for the function : A new loin cloth, a goat, a pair of pigeons and some fowls and one to five rupees.

When the disciple makes these things ready the *ojha* with his wife goes to the house of the disciple and gives the *sid* there. The *guru* and *chela* first go and bathe. Coming back they clean some place in the courtyard with cowdung and the *ojha* here puts down a few small handfuls of *adwa* rice and makes some vermilion marks at each small heap of *adwa* rice (the number of heaps vary according to the number of sacrifices to be made). The loin cloth is then spread in the courtyard, the *ojha* takes his seat on it and performs the sacrifices ; the *chela* holds the goats, the fowls and the pigeons whilst the *guru* beheads them. In one of the corners of the loin cloth the money to be given to the *guru* is tied up and when the sacrifices are performed he takes the cloth and money.

Sunum bonga or divination by oil and leaves : By this means the Santal *ojha* finds out the final cause or origin of disease and death. The *ojha* demands the following things from the person who engages the *ojha* :

- (1) Sal tree leaves (*Shorea robusta*, Gärtu).
- (2) Mustard oil.
- (3) A little water.

The *ojha* then squats down and jerks his head a couple of times and then he dips the index-finger of the right hand in the mustard oil and sprinkles a few drops towards the sun and then he draws a mark of oil with

the same finger on the earth. The *ojha* then takes a sal leaf and looks intensely over it and then takes another look over it in the similar way. A sal leaf has a number of veins which divide the surface into several compartments. In different places on the surface of a leaf the *ojha* drops oil with the index or middle finger of the right hand uttering at the same time what each oil mark is to stand for, viz., the supposed possible cause or origin of the patient's disease. The Santals believe that one of the following causes brings disease, death and misery :

- (1) Natural causes,
- (2) Human beings,
- (3) *Bongas*, and
- (4) The spirits of ancestors.

The *ojha* in the above way puts marks here and there on the leaf, at the same time muttering to himself that this is for such and that for such, and a third for something else, and so on, whereupon he commences to rub each mark in with his finger. Whilst rubbing, the *ojha* mutters some *Mantras*. The Santal *ojha* uses different names for oils and leaves in the *Mantra* ; if the particular kind used is not mentioned in the *Mantra* the magic would be spoilt.

"Tarik" or Detection of Disease by Sirom Broom : The Santal *Ojha* draws a number of squares side by side on the earth with a twig or handle of a Sirom broom. At first three long lines are drawn parallel to one another on the ground and then a number of short lines are drawn across the above three lines, thus getting a figure with the help of a number of squares. The *ojha* then

fixes the twig in each square in the ground.¹ He then takes out the twig from the figures and touches it with his forehead and destroys the figures drawn. He repeats the operation a couple of times. When saluting the twig, a disease is mentioned; if the hand trembles, it is the disease just then named.

By means of the above operation the *ojha* also finds out the *bonga* who has done this mischief.

The *ojha* with the handle end of a broom of Sirom (*Andropogon Muricatus* Retz., Straw) draws a circle on the earth by sitting on his haunches facing the East. In the centre of the circle the *ojha* puts the handle end of the broom down and then he salutes the broom by taking it out from the circle. Uttering the name of a *bonga*, he again puts the handle end of the broom in the centre of the circle and salutes it by raising it and at the same time utters the name of another *bonga*. In this way he repeats the operation several times until his hand holding the broom commences to tremble (not intentionally). Then he knows it is the *bonga* just named who is making the mischief.

Adwa chawla and bul mayam: By this the *ojha* propitiates the spirits of the outskirts of the village. The *ojha* calls for some *adwa chawla* (rice husked without having been boiled previously) and a little vermilion which he packs in a leaf of sal tree and instructs the patient to touch this with his left hand. The *ojha* with the "Karta" (Head man) of the house comes out of the house. Here the *ojha* pricks his body with a thorn

¹If he used a broom he keeps this in a vertical position, handle down, for a little while.

of jujube tree. The blood that comes out is smeared on the rice; the *ojha* then scatters this rice on the ground as an offering to the *bongas* and at the same time invokes the *bongas*. Blood is given to satisfy a malevolent spirit. Seeing or tasting blood the *bongas* are very pleased and are quickly ready to listen. This offering of blood is called administering *bul mayam*; '*bul*' means to be drunk and '*mayam*' means blood.

The *ojha* then washes the parts where he has pricked himself and sprinkles a little water on his head.

After the *bul mayam* performance the *ojha* may take some other precautions. He calls for a *Rombro sim* (a thieving fowl). They bring him a *lisa sim* (a fowl with feathers reversed, its colour must be other than white). The *ojha* gets some charcoal and burnt clay (from the inside of a fireplace); he then grinds these two separately and puts temporarily aside wrapped up in two leaves. The *ojha* has brought with him a leaf of sal tree on which he has performed *Sunum bonga*. This he performs near the patient. He first draws a circle on the floor with a small bit of wood the diameter of which is about 12 inches. Inside this circle he makes a number of marks resembling those on the leaf; he then spits on the drawing within the circle and puts his left heel heavily down on it and finally with the left heel rubs out the marks he has drawn. He performs this operation several times. During this time the *ojha* remains silent. The object is to undo the deception of a possible witch. After this, he puts a leaf-plate on the ground, draws a circle on it and puts some burnt clay from the fireplace and

then makes cross marks with powdered charcoal. He destroys the figures by dropping powdered rice over them. He repeats the process two or three times and then puts his heel down in the centre of the figure on the left-plate, and ultimately bites the plate with his teeth and in this way turns it over. Next, the above-mentioned fowl is given into the hand of the *ojha*, and he applies vermilion (*sindur*) on its head after having washed it with water. The patient is then brought before the *ojha* and sits down in front of him. The *ojha* asks the patient to touch the fowl and makes the fowl feed on the rice kept on the leaf-plate.

Next the *ojha* performs a very important act with the patient which is known as *bulan*. He takes the fowl and moves it thrice round the patient making a circle alternately from right to left and thrice alternately the opposite way, passing the fowl on its way between his legs from behind and forwards; the fowl is first taken in the right hand round the patient, passed between the *ojha's* legs from behind underneath the right thigh; here the *ojha* takes hold of the fowl with his left hand and passes the fowl round the sitting patient and beneath his left thigh when he again changes hands.

With the *cowdung* the *ojha* obliterates the traces of the circle he at first drew with the twig. With the little finger of his left hand, he draws a square mark on the ground, and within this square the *ojha* pinches off a little earth, mixes it with *cowdung* and rolls it into a ball. This ball he keeps into a cup of water, only to clean it. The *ojha* then throws some ashes into a leaf-cup with water.

Then the *ojha* takes the leaf-wrapped charcoal and *etko* and whatever else he has used for making figures, etc., and wraps these things in a leaf-plate. Taking the leaf plate and the fowl in his hand the *ojha* walks out of the house of the patient without casting his look backwards. The people inside the house now take the two cups and throw the water after the *ojha* and quickly close the door. Followed by some of the village men the *ojha* goes straight to the forest or to some other place away from that quarter. Here he sacrifices the fowl in the name of some *bonga* of the outskirts offering an invocation. Some kill the fowl and eat it forthwith while others sacrifice the fowl by wringing the fowl's neck. In this case, however, they do not eat it but leave it on the spot with some pieces of stone placed over it. The last procedure is the most common. The *ojha* after having done all this returns to the house of the patient where he brings down oil and vermilion. He makes some mark in the courtyard with vermilion, at the same time making a vow of offering sacrifices to some special *bonga* of his when the patient recovers.

The Jan guru or the Witch-Director : The word *Jan* is not a Santal word ; it is borrowed from a Hindi word meaning 'to know', i.e., he is the man who knows by revelation. People pronounced by the *Jans* to be witches are taken as witches by the Santals. Whether they really find them out or the whole thing is a hoax, the Santals believe that they find them out.

When in a family a man suffers from a disease, and none can cure him, the patient or his relatives decide to carry the matter to a *Jan*. They always go in a crowd to the *Jan*. They are, as a matter of course, a

couple of men representing the patient, the husband and male relatives of some woman clearly suspected and a few villagers as witnesses. They go together and never lose sight of one another to prevent any one from secretly informing the *Jan* about their business. When they reach the *Jan's* village, they go to the village headman and ask him to introduce them to the *Jan guru*, a request which is always complied with. The headman then asks them to bring the following things, necessary for divination :

(1) One betal nut, (2) one sal-leaf cup, (3) some adwa rice, (4) mustard oil, (5) vermilion, (6) resin of the sal tree, and (7) some leaves of the bael tree (*Aegle Marmelos*).

On the appointed time they come to the *Jan* who transacts his business with them either in his own house, or in the *Jahersthan*, or somewhere outside the village.

The *Jan* puts down some adwa rice in a number of places in the name of different *bongas*, puts along side all these, heaps of bael leaves and finally, having mixed the oil and vermilion, puts that oil-mixed vermilion in front of the rice. He then throws resin on burning charcoal blows shakuas, sounds the *bongas* bell and worships his *bongas* (they have adopted these things from the Hindus). Then the *Jan* begins to utter incessantly incoherent words. He then tells the name of the place where from they have come, then, the name of the village, the description of the village, the name of the headman of the village, the name of the person who is sick and that of his relatives. At this they are convinced of the proficiency of the *Jan* and

tell him 'Now let us hear the oracle'. The *Jan* then takes his fee which is a rupee and tells them the name of a *bonga* or a witch who is at the bottom of their troubles.

Then they return to their village. If the *Jan* says that a *bonga* is giving the trouble then the patient will promise sacrifice. If the *Jan* declares any woman to be a witch, this woman is harassed in every possible way, fined and driven out of the village, and at times killed.

At present the *Jans* are, according to Santal belief, not like the old righteous ones. The *Jans* of ancient time got their knowledge through dreams at night or through visions in the daytime, not possessed by a divination spirit like *Jans* of the present day. Now-a-days the *Jans* keep informers who find out and tell them all particulars. *Jans* of to-day are very careful in fixing the blame. They generally fix the blame on some *bonga* or other in preference to a witch.

Classification of the supreme, superior and supernatural beings: It is very difficult to attempt a classification of the orders of the supernatural beings which constitute the religious belief of a community. The classification would often imply the existence of a notion of hierarchy of the supernatural beings, one being far superior to the rest. It is curious to observe that this supreme being is never worshipped in the faith that he can never work out any evil. As for the rest the rank may be determined in the order in which worship is offered to them. But here again the difficulty would lie in the fact that a particular occasion would demand predominance being given to particular spirits. Thus the classification would be more or less a division in parallel lines, for it

would be hard to decide the superiority or inferiority of the ancestral spirits on the one hand and the departmental deities of nature on the other. However the following eight classes would differentiate the types of these supernatural beings in Santal belief.

1. The highest divinity recognised by the Santal is *Kando*, the Supreme Being, the Creator. He is the only one who can give and restore life and who has created the trees, plants, animals, etc.

2. The spirits of dead ancestors are placed by the Santals in a separate class by themselves.

3. The next is composed of household spirits known as *Orak bongas* and tutelary spirits known as *Abge bongas*. The names of the *Orak bonga* are the following :

- | | | | |
|--------------|---------------|-----------------|-----------|
| 1. Baspahar. | 2. Deswali. | 3. Seas | 4. Goraya |
| 5. Barpahar. | 6. Sarchawdi. | 7. Thuntatursa. | |

The names of the *Abge bonga* are the following :

- | | | |
|-------------------------------|-----------------|---------------------|
| 1. Darasore or
Dharasanda. | 2. Ketkomkudra | 3. Champa denagarh. |
| 4. Garsinka. | 5. Lilachandi. | 6. Dhanghara. |
| 7. Kudracandi. | 8. Barhara. | 9. Duarseri. |
| 10. Kudraj. | 11. Gasain Era. | 12. Achali |
| 13. Deswali. | 14. Pahardana. | |

It may be noted here that the Santal would not divulge the name of his *Orak bonga* and *Abge bonga* to any one but his eldest son and I was fortunate to get the names from the Christian converts.

4. The fourth class is the hunting spirit known as *Rongo ruji*, a bonga to whom worship is made on the

night before the men start for the annual tribal hunt with utterly obscene songs and practices.

5. The fifth class of spirits are the village deities, which are the following :

- | | |
|-------------------------|-------------------------|
| 1. Jaher Era (female). | 2. Gosain Era (female). |
| 3. Truko Muruko (male). | 4. Marang Buru (male). |
| 5. Parganat (male). | |

The Santals worship the above deities periodically in the sacred grove.

6. There are spirits of the village boundary known as *Sima bongas*, and of the outskirt of the village known as *Bahre bongas*.

7. Next come tramp or stray spirits who are spirits of persons and children dying an unnatural death.

8. The spirit of the father-in-law's household, as is believed, sometime follows the bride to her new house which is known as *Naihar bonga*. As soon as a Santal is convinced that the *Naihar bonga* has come along he will either make yearly sacrifices to him, or, as there is some risk connected with it as one does not know the requirements of the foreign *bonga*, he will make arrangements to send him back at once, for by himself he will not return. If either is not done the consequences are disease and death in the house.

Another spirit that must be exercised is *Kisar bonga*. The *Kisar bonga* is of a rather uncertain character. A man who has got such a *bonga* into his house will be wealthy through him as he steals from others and carries all to the house of his master, but if he is offended there is no end to the mischief he will make. If on his account disease is brought into a

family, the whole of it will be exterminated if the *Kisar bonga* is not effectually sent away from the house.

9. The last to be grouped are the spirits or rather mysterious powers residing in or connected with certain objects such as battle-axe (*Kapi Karan bonga* and *Bhalus Bijai bonga*. *Bhalu* is most likely a shortened form of *Bhalua Kapi*, the name of a common form of their battle-axe), and some weird natural objects such as an abnormally gnarled bamboo-shoot, tree-roots, some weird-looking fantastic-shaped hills or a roaring cataract, a waterfall or a tank-side. These spirits are not objects of worship nor do they receive sacrifices but are mischievous spirits who have to be scared away or exorcised by the *ojha* (spirit-doctor).

Santal religious ceremonies :

The Santals have no temple nor any shed for worship but they have a *Sthan* (place) known as *Jahirsthan* where they worship the village deities. The *Jahirsthan* is a place where religious ceremonies of the village are performed by the Santals. It is situated at the end of the village and it must be within the boundary of the village. It should consist of trees belonging to the primeval forest. A cluster of sal trees about twenty to twenty-five in number, is always required. Among these trees three are essential and they must stand in a row. At the base of each of these three trees a small stone is placed representing the deities *Jaherera*, *Truko Muruko*, *Marang-Buru*. The fourth is an Ashan tree which grows anywhere near those three sal trees, and a stone is put on its base representing the diety *Pargana Bonga*. The fifth and

the last is a Mowah tree; on its foot a stone representing the deity *Gosain Era* is kept. This is the most important one and is known as Lady of the Grove.

In the Santal villages there is a succession of festivals throughout the year, nearly all connected with agricultural operations. The chief of these is the *Sohrae* or *Banda parab* or the harvest festival, celebrated in the Bengali month Pous (i.e., at the beginning of the month of January) after the rice crop of the year has been harvested. This festival generally lasts for five days. Previously there was no fixed date, villagers of one locality performing this festival one day, others performing on some other day. But now-a-days the Deputy Commissioner of the Santal Parganas fixes the date for this festival, and this date is proclaimed by a man with a *sal* branch in his hand in every *hut*. Before this *parab*, Santal women buy large earthen vessels and replace old ones which they bought in the previous year. When the day has been fixed all houses prepare "handia" (rice beer) and people invite their relatives. The night before the festival commences, the *Naike* is religiously-abstinent for before any sacrifice the sacrificer must not have relations with a woman and should sleep on the ground on a mat. At day break the *goddet* goes round and collects sacrificial fowls from every house. In the middle of the forenoon the *Naike* goes near a tank together with some of the village people, the *goddet* taking the fowls with him. The *Naike* bathes and then sacrifices the fowls to the different *bongas* after which the villagers cook the fowls with rice and eat them, and also drink rice beer. After this the villagers go to *Kulimucha* (i.e.,

the meadow on the outskirts of the village), and there they draw rectangular compartments side by side, and in each compartment they put some adwa rice and in one compartment they put an egg of a hen. They then call the cowboys with the cattle and make the latter tread out the above figures. The cow which treads on and breaks the egg or simply smells it, is caught. They wash her feet, anoint the horns with oils and also smear vermilion on them. The idea is that the owner of the cow will have good luck. The cow is then lifted up and carried on the shoulder and put down before the *manjhi* (headman) whom the owner salutes and then all elderly men of the village. This the Santals call *Gote puja*.

On the second day in each house of the village within the cowshed the eldest member of the house performs a *puja*. In the centre of the cowshed he draws a circle and within it he puts adwa rice and paints vermilion and kills white and red fowls and sacrifices pig to *Marang Buru*, the household gods and their ancestors. All the men of the village go with their ploughyokes, battle-axes and knives to bathe. On that day no outsiders are allowed to enter the house. The Santals call this *Gora bonga puja*.

The third day they set wooden poles in the village street, a bundle of straw being tied on the top of the poles, put some flowers on the poles and also tie five pieces of bread made of powdered rice. Then a bull, after washing and smearing oil on its horns and painting vermilion on them, is tied to the pole. Then the bachelors and little boys of the village begin to drum, dance and scream so furiously that the animals becomes excited and begin to jump. To the horns of all the cows and buffaloes of the villages a piece of straw is

tied and vermillion with mustard oil painted. Friends come and go visiting one another, all (both male and female) more or less drunk and wild with excitement. After all is over, the young people drink and eat in the house of the *jog-manjhi*.

The other two days are for nothing but to enjoy life, merry-making going on in full swing with full sex license. For the five days and nights during which the festival lasts the Santals indulge in a veritable saturnalia giving themselves up to dancing, eating, drinking, singing and sexual license. Although this license does not allow adultery, nor does it sanction intercourse between persons of the same sept, yet if the latter offence is committed it is punished less severely than at other times.

Sakrat Festival. After this another festival known as *Sakrat* takes place on the last day of the month of Pous (December and January). This is an imitation of the Hindu *Pous Sankranti* festival. The Santals (only males) go out fishing to the streamlet a day before the actual festival. From the morning of that day the women are busy preparing cakes of parched rice. The men folk eat curd and parched rice (*chura*) and go out for hunting in the morning. The cakes are first offered to the ancestors and then eaten. In the afternoon the *Jogmanjhi* collects all the adult males of the village in an adjoining field for archery and other sports. After that in the evening they dance and sing, drink rice beer and spend the day in various kinds of amusements. On the third day they go out to the fair or market (*hut*) after eating a preparation of rice and dal boiled together.

Baha Parab. Next in importance is the *Baha parab* which is held in the Bengali month Phalgun (February-March). This festival takes place when the sal trees (*shorea robusta*) begin to flower. *Baha* is a Santali word which means flower. The purpose of holding this festival is that the new year is well commenced. Drinking, dancing and singing go on in this festival also. The festival takes place in the *Jahersthan* and the *Naike* and *Kudum Naike* worship in the *Jahersthan*. On the first day of the festival the young people of the village build two sheds in *Jahersthan*, one for *Jaher-era*, *Turuko Moreko* and *Marang Buru* and the other for *Gosain era*. The *sthans* are cleaned by plastering with cowdung. Then they go to bathe and oil several articles (winnowing fan, basket, bow and arrows, battle-axe, broom, a wristlet, a necklace and bell and horn of a buffalo which they call *sakua*) which are to be used next day, when three persons become possessed by the three first bongas mentioned above. The whole night is spent in drumming at the house of the *Naike*, where all assemble with *bongas* (the persons who will be possessed with bongas are called *bongas*). *Jaher-era* is a female diety and a man who is possessed with this *bonga* takes the ornaments, the basket and the broom; *Moreka* takes the bow and arrow and *Marang Buru* carries the battle-axe. With these articles they start running for the *Jahersthan* followed by the boys who carry drums cymbals, bugle and bull-roarer. On arriving at the *Jahersthan*, *Jaher-era* sweeps the place; the *Naike* asks the *bongas* (i.e., those who are possessed with the deities) for the things they have brought and places them on a mat. He then asks them questions

about the happenings of the coming year. The *Naike* then washes the *bongas* and throws the surplus water over them, whereupon the *bongas* jump up howling. Then they return home.

Next day they again go to the *Jahersthan*. When they see a fine *sal* tree in bloom, *Moreka* shoots an arrow into it, while *Marang Buru* climbs it and cuts down the flowering branches. *Jahar-era* receiving the flowers in a basket. On the road *Marang Buru* gathers mowah blossoms. In the *Jahersthan* the *bongas* are again placed on a mat under the shed, and the *Naike*, sitting in front of them, sacrifices the fowls, and places a bunch of flowers with a mowah flower before each *bonga*. The *bongas* suck the blood of the fowls, whereupon the *Naike* washes their feet. *Jahar-era* doing the same to the *Naike*. The *Naike*, together with his wife who is now brought to the *Jahersthan* for the purpose, eats one of the fowls cooked with rice; some of the villagers eat the rest in the *Jahersthan*. After this all leave, except the *Naike* who remains alone in the *Jahersthan*. The villagers then proceed to sacrifice fowls and pigs in their own houses, and to eat and drink. In the afternoon they go to the *Jahersthan* to bring the *Naike* back and the rest of the day is spent in general merry making. The women also enjoy to their heart's content.

The Santals perform several festivals before sowing seeds and also after reaping when they offer the first fruits to the village deities.

Erok-Puja : This festival they perform before sowing seeds in the newly ploughed field. They celebrate it in

the *Jahersthan* in the month of Asadh (June-July). *Naike* and his assistant *Kudum Naike* perform the function. Five fowls are sacrificed in the *Jahersthan*. After the function they cook these fowls and eat them. the heads of the fowls are taken by the *Naike* and *Kudum Naike*.

Hariar Sim : The Santals hold this festival at the time of the sprouting of rice, which takes place in the month of Sraban (July-August). Fowls are sacrificed to all the tribal and village deities and prayers are offered for a bountiful harvest.

Janthar Puja (Nawai) This festival is held in the month of Agrahayan (November-December) in the *Jahersthan* when the first gathering of the winter rice crop is offered. Similarly the first gathering of the millets is offered in the sacred grove in the month of Bhadra (August-September) which the Santals call Irigrudli-nawai. The *Naike* reaps a little of the crop and offers to the village deities in the *Jahersthan*, and ties a twig round the five trees of the *Jahersthan*. The *Naike* at the time of uttering prayer pours some milk on the offerings. Similar offerings are made by each householder of the village to the spirits of their ancestors.

Mak' More : This festival is observed by the Santals generally at intervals of five years or so in the *Jahersthan* as a result of vows made at times of distress or epidemics. Fowls are sacrificed and a white goat is sacrificed in the name of the village community to *Mokresko*, one of the five deities of Santals which they worship in the *Jahersthan*. The flesh of the sacrificed

animals is eaten by the men. The only woman who gets a share is the wife of the priest. Drinking, dancing and singing are followed by young men and women of the village.

Jom Sim: The *Jom Sim* is performed with many quaint ceremonies which differ somewhat for the different clans. That is why it is called clan festival. Mr. Culshaw recorded some stories from which it can be ascertained how it is connected with clan. "The Karwak Hasdak tell the story of how long ago their ancestors were celebrating the *Jom Sim* festival and all the Hasdak were present. They had performed the sacrifices and everyone had been served with rice and meat, but some of the younger folk present felt that they had not been given enough to eat, so they killed a buffalo, or kada, became known as Karwar Hasdak". The Soren Santal relate "that in the very early days the ancestors of the Soren were celebrating the *Jom Sim* festival and some of the company began to prepare the food and cook it. In imitation of Brahmin cooks they put on sacred threads and served all the people. From that time they became known as poita Soren".¹

It is probably the oldest sacrifice the Santal have because it has more aboriginal features in it than any other sacrifice of theirs.

Dihri Hunting : The *Dihri* hunting, which is the most important hunting of the Santals which takes place once a year in the month of Falgun (February and March). *Dihri*, their hunting priest carries a big branch of a *Sal* tree with leaves and goes to the market, where people

¹W.J. Culshaw—Tribal heritage, 1949, pp. 74 and 72.

seeing him understand the purpose of his coming. As each leaf represents a day so they count them all and go out for hunting after just the number of days as indicated by the leaves of the branch. In this hunting expedition people of distant villages take part. The *Dihri* is responsible for the hunt, i.e. (all goes well and no mishap occurs). By divination he finds out as to who are threatened by any danger during the hunt, and advises them to turn back but they generally make him sacrifice fowls for them to *Sin Bonga* to avert the impending calamity. He performs some ceremony and offers sacrifices to *bongas* of the forest where the hunt is to be held, to ensure success and safety in the following way :

The *Dihri* enters the forest and being naked, pricks his whole body except the joints, with the thorn of a bush. He then draws a small circle on the ground with powdered rice and puts some adwa rice mixed with the blood which comes out from his body and makes a vermilion mark inside the circle. The *Dihri* then gives a little rice to all the forest *bongas*. Others who are following him, then enter the forest with bows and arrows.

Mag-Sim : The Santals perform this festival in the month of Magh (January-February) when the jungle grass is mown ; fowls are sacrificed to all the *bongas* by the village priest and his assistant. This festival marks the end of the Santal year. All the village officials go through the form of resigning their offices and the cultivators give up their lands. After a week the headman of the village says before all the villagers that he has changed his mind and would like to continue in the

post, they generally accept it and this is followed by free drinks of handia (rice beer) and acclamations. All the other officials do the same and all other things remain the same as before.

I now propose to describe here some festivals which are believed to have been borrowed by the Santals from others. These are as follows :

Jatra Parab : The Santals have probably borrowed this from the *Bhuiyas*¹. They perform this festival somewhere outside the village in the month of Magh (January-February). Pieces of stone are imbedded in raised mounds of earth and are painted with vermilion. The Naike then mixes some adwa rice, with milk and betel-nut together and offers this compound to the *bonga*. Then a pigeon and a goat are sacrificed and their blood poured out as an oblation. During the performance oracles are chanted by three or five persons in number, who sit close in a row on some adjacent spot, wag their heads to and fro all the time and work themselves into a prophetic frenzy. Any Santal, who consults them in a reverent manner, will at once get an answer to his questions whether as to his bodily ailments, the death of his cattle or the suspected presence of a witch in his village. For this at least four annas are thrown down at the feet of those five persons.

The Chata Parba : This is a Hindu festival which takes place in the rainy season in the month of Bhadra and is observed by one sept, the Hasdah and by their Kamars (blacksmiths). The preliminary function of

¹A Tribe of Chota Nagpur (Bihar).

this festival resembles those of all the others but at the end of the offering a ceremony takes place. A wooden pole, about twelve cubits long, is erected and made to turn a half circle perpendicularly and horizontally. The pole is fastened on a loose but strong iron pivot which rests in hole made in two upright pieces of wood about six feet in height from the ground. On the top of this revolving pole is tied a small ornamented umbrella and this is caused to jerk first one way and then the other. The reaction of this pole is followed with shouts and other noisy demonstrations of delight, the people gather handfuls of dust and dirt and forthwith begin to pelt the umbrella. This novel mode of veneration is at the same time accompanied with dances both by males and females. Refreshments and handia (rice beer) are dealt out from sheds erected for the purpose and the whole assembled population regale themselves in the open air with it. The sacrifices in this festival are always eaten at home and not on the spot.

Pata Parab : This festival is performed by the Santals in the month of Bhadra in honour of their *Pala Bonga*. It is a corrupt form of the Hindu *Charak festival*, in which the Hindus offer puja to Lord Siva. During this time Santals do acrobatic acts in honour of their deity. On a vertical pole a revolving cross bar is fixed, on either end of which a man is held by an iron hook fastened to his clothing. The pair then are swung round and round very fast. Now-a-days instead of the iron hook a length of rope is used to hold the men in position. In this festival the same sacrifices are offered as at *Jatra Parab*.

Besides these, the Santals join in many of the Hindu festivals. In the *Durga Puja* ceremony the Santals come to see the ceremony and rejoice. Within their village they, both males and females, sing and dance together for these five days. The Santals perform the *Kali Puja*. Evidence of this can be ascertained from news published in one of the daily newspapers in the year 1933 on February 16th.

"The Santal Guru Sannyasi Baba has sent the following letter to be District Magistrate, Malda :

About a hundred Santals from Malda bring it to my notice that their annual Kali puja which was so long performed by their Sardar Jitu under my orders is going to be stopped. Unhappily, Jitu under a sad mistake died and the Santal Kali puja should not, on that account, be stopped. On the other hand, to allay this strained feeling amongst the Santals I propose to hold the Santal Kali puja at Malda myself. I assure you there will be no disturbance and not only that it will bring back the old good feelings so far as practicable under the circumstance.

As the puja will be held in the month of Falgun I shall be highly obliged to receive an early reply to this letter at your earliest convenience. The annual Santal shooting passed off smoothly and the authorities allowed it and were satisfied."¹

¹The Amrita Bazar Patrika, February 16, 1933.

Santal Laws and Government

It is too early yet to disentangle the various cultural elements which have set their stamp on the village organisation of different parts of India. Socio-economists and students of primitive law are greatly indebted to Prof. Radhakamal Mukherjee for trying to pierce through the veil that surrounds the beginnings of Indian primitive political and judicial institutions by a culture-strata analysis. In his illuminating paper¹ he first of all describes the system in which perhaps most primitive elements have survived such as the Khond type, mainly characterised by tribal system in a village. The second, the more advanced type, is to be found according to him among the Mundas and the Oraons of Chota Nagpur characterised by tribal government and an agrarian distribution under centralised control. A still more advanced type would be that found among village communities of Malabar with democratic tribal traditions overlaid by feudal and monarchical tribal tendencies and found in all complexities amongst the most interesting matriarchal Nayers, though there are many patrarchal tribes in Cochin, Travancore and Coorg. Lastly came the fourth type, the Indo-Aryan. The Munda-Dravidian village constitution is contrasted with the Indo-Aryan system. Later on he has found out another type which he calls Mongoloid (which might be termed the Assam type) and he has further differentiated the Indo-Aryan type from

¹R.K. Mukerjee, *Village Communities in India*, *Man in India*, Vol. III, 1923, pp. 1-27.

N.W. India into the Afghan and Beluchi sub-types. Thus we have the regional economic types of (1) Assam, (2) Chota Nagpur, (3) Malabar, and Madras (4) and N.W. India, which possibly spread over the rest of India along with Aryan conquest and colonisation. It is quite likely that there would be many sub-types in each. In the *Festschrift* presented to Pater Schmidt, we have a division of the cultural strata of India into the Ur-folk of Palaeolithic time, the Dravidians with Neolithic shoulder-celt culture and the Aryans with copper or iron, succeeding each other chronologically. Giuffrida-Ruggeri's ethnic stratification of India gives us the Negritos, the Australoid Vedda, Dravidians and different Indo-Aryan races succeeding each other chronologically. Prof. Von Eickstedt's classification gives us interesting zonal ethnic types such as (1) the Veddoid, or Palaeo-Indian, the most primitive group with two varieties namely Malidae from Northern jungles and Gondidae from Central Province and Chota Nagpur, and (2) the non-Negroid Melanid group with the sub-type of Kolidae followed by two advanced groups of Indidae and Brachydae.

Thus a cultural analysis of a Santal village administration would pave the way for a clear understanding of the economic and political stratification and their history and evolution in ancient India and what was the real contribution of the Assam, Chota Nagpur or Malabar and Madras or N.W. Indian type to it. The Santal type follows closely what has been described as Mnuda-Oraon constitution; as the Santals are linguistically and culturally, if not physically closely akin to the Mundas, Hos, etc., though the Oraons are linguistically quite different.

Santal Administrative Officer.

Manjhi (Headman) : The basis of the Santal communal system is the village. Santals will never settle alone in an uncultivated area ; they go there in a body and settle with a leader and his assistants. The leader is known as *Manjhi* (headman), being chosen by the village people to administer the rights, rules and ceremonies of the Santal village community. No public sacrifice, no festival, no ceremony such as marriage can properly be done without the *Manjhi* taking the lead or initiative. The *Manjhi* is the representative of the village both in external and internal affairs. He also collects rents from the villagers. If the headman of a Santal village be other than a Santal (such as Kumar or Bauri) which sometimes happens, the Santals will have for themselves an official called *Handi Manjhi* who performs all the duties of the Santal village except collecting rent and other work demanded by the Government.

Assistant to the Headman-Paramanik Jogmanjhi : There are two assistants to the *Manjhi*, one is *Paramanik* and the other is the *Jogmanjhi*. The *Paramanik* is the principal assistant and representative of the *Manjhi* by whom he is chosen. If the *Manjhi* dies without any male issue or brothers then the *Paramanik* will get the office. In his (*Manjhi's*) social functions the *Manjhi* is assisted by the *Jogmanjhi*. His duty to prevent sexual intercourse in the same sept and also with a *diku* (non-Santal). If a girl becomes pregnant the *Jogmanjhi* has to find out who the culprit is. If he does not, the villagers tie him with the rope used for tying a buffalo to a pole in the cowshed of the *Manjhi*

and scold him and fine him. At the time of *Sohras parab* all the villagers, young and old, male and female, drink handi (rice beer). Singing, dancing and other entertainments go on without restriction for five days and nights and at these times the boys and girls remain in charge of the *Jogmanjhi*. At the birth of a child and at marriages he is in charge of those ceremonies, and when the village youths attend a night festival he is in charge of them. Formerly he had a very important position though now gradually he is losing all authority; but the young people still use him as a safe repository of their secrets. The *Jogmanjhi* has an assistant called *Jog-Paramanik* who officiates when he is absent.

Village Bandle—Goddet (Gorait-Risley): Next in rank is the *Goddet*, an orderly or peon of the headman of the village, who calls the villagers together at his command and also collects sacrificial fowl for the village sacrifices. Whenever any foreigner comes in the village and enquires about the headman, the *Goddet* at once runs and informs him. (One morning I went to a village at Katikund within Dumka Sub-division. I asked the villager where the headman of the village was. The *Goddet* said he was in the agricultural field and at once ran to call him. He then came back with the headman to me). The Santals call the *Goddet* *Marang*, *Manjhi* i.e., great chief, and there are many instances of *Goddets* having ousted a *Manjhi* or even a *Parganait*. If a *Paramanik* gets the office of *Manjhi* it is considered proper that the *Goddet* should become *Paramanik*.

**Federal Officers (Parganait) and Assistant Federal Officer
(Deshmanjhi)**

A *Parganait* is an officer who is in charge of several villages collectively known as *bunglow*. (For administrative purposes several villages are grouped together in what is now known as a *bunglow*). The number of villages contained within each vary in every case. The place where I worked, the Sundarpahari *bunglow*, within Godda sub-division, consisted of the following 28 villages.

Villages of Sundarpahari Bunglow

- | | |
|--------------------|---------------------|
| 1. Tetria | 15. Jitpur. |
| 2. Domdi | 16. Bara Kalajuri. |
| 3. Kusumghati | 17. Chota Kalajuri. |
| 4. Tilabad. | 18. Gamaroe. |
| 5. Amjora. | 19. Gamarbera. |
| 6. Jisubathan. | 20. Dahubera. |
| 7. Bara Kalajore. | 21. Telbitha. |
| 8. Choto Kalajore. | 22. Jamalpur. |
| 9. Mohonpur. | 23. Jiapuri. |
| 10. Sundarpahari. | 24. Ladhapathor. |
| 11. Salodi. | 25. Phulberia. |
| 12. Salpathra. | 26. Manibathan. |
| 13. Paharpur. | 27. Dhapahari. |
| 14. Rampur. | 28. Zolo |

As a *Manjhi* has an assistant so the *Parganait* also has one known as *Desh-Manjhi*. There are also *Chakladars* who are appointed by the *Parganait* who act as the messengers of the two above officers. Outside the *Damin* area there is no *Parganait* and *sardars* are appointed by the Sub-divisional officer having a number of *chowkidars* under him.

Custom has made these positions hereditary and there is a formal election system. The eldest member in each house of the village has a vote. After election the headman's appointment is confirmed by the Sub-divisional officer and the Deputy Commissioner of that Division, and the *Desh Manjhi's* appointment is confirmed by the Sub-divisional Officer only.

Federal Council and The First Court of Appeal The Panchayat and Kulidrup

In the month of Magh (January and February) the village people gather together after a sacrifice. The headman of the village, taking the lead, resigns his post to the village people; all the other officials of the village also resign their posts one after another.

Panchayat : In each *bunglow* there are two councils, upper and lower, like the modern Council House and Assembly of India. The upper is known as *Panchayat* in which the *Parganait* of the *bunglow* presides and the headman of all the villages of the *bunglow* become members of the *Panchayat*. Affairs of a weighty nature have to be decided in the council.

Kulidrup : The lower assembly is known as *Kulidrup* in which the eldest member of each house represents the assembly and the headman of the village presides. The indigenous officials of the village described above are ex-officio members of the *Kulidrup* and every village has a place for holding the council before the house of the headman of the village which is known as *Manjhistan*. All petty disputes, both of a civil and

criminal nature, are settled there but if the matter to be settled is of an immoral and shameful character, they go to the end of the village street or on some other convenient place where they need not fear to hurt the feelings of their womenkind.

Inheritance: In the matter of inheritance, the Santals follow their own customs and know nothing of the so-called codes which govern the devolution of property among the Hindus. Till the death of the father the property of the family remains intact and all the members enjoy in common. After his death the property is divided among his sons equally except that the eldest gets a bullock and a rupee more than the others. As the Santal women have no right to any of the property, movable and immovable, the question of inheritance on their part cannot arise at all. If a man dies without an issue his property goes to the nearest relation. If the father of the deceased remains alive the property will revert to the father; if he is dead it goes to the brothers of the deceased equally; if the latter are dead their sons succeed. In default of this the paternal uncles and their sons become successors. The condition of the widow of a childless man becomes very bad; none takes her charge. Sometimes she gets one cloth, a bati (brass vessel), a calf and 10 to 12 maunds of paddy. Sometimes also it can be seen that her husband's younger brothers keep her. Even when one of the younger brothers keeps her, the share of the deceased brother is equally divided between all the brothers. If the younger brothers of her husband do not give her any shelter she returns to her parents'

house. If a man leaves only daughters (unmarried) their paternal grandfather or uncles take charge of them and of the widow and the property remains in their possession. They give to these girls the presents which they get during their marriage as their own property, but the bride-price goes to guardians, headman, etc. After marriage the widow gets the perquisites of a childless widow and returns to her father's or to her daughter's house. In many cases it can be seen that one of the sons-in-law becomes *gharda-jawae*. He lives with his wife in the father-in-laws house and helps him in every possible way like a son till he dies, when the *gharda-jawae* inherits all the immovable property and half the movable property ; the other half goes to the relatives of the deceased.

If a man dies leaving a widow and several sons (minor), then the widow keeps all the property in her possession. The grandfather or uncles of the sons see that the widow does not waste it. If the widow remarries before her son's marriage the grandfather and uncles take possession of the property. The mother of the sons has no right to any part of it. Sometimes it can be seen that the widow gets a calf which is known as *Bhandkar*. If the widow does not marry again, she lives with her sons, generally with the youngest son. The youngest son then claims the property of his mother after her death. No other can claim it.

Partition: Partition in a Santal family generally takes place when members become numerous in a family, and a single house cannot accommodate all

the members; or if the sons do not live happily together, specially when the father has married again and had other issue, the parents make a partition. This partition takes place in the presence of the members of the Kulidrup (the council of the village people). A Kulidrup is called and the father divides all the land, cattle, and other things. The landed property is divided equally, the father and the sons get a share each. The house is also divided equally among the sons and father. If in a house there are four rooms then each will get one, provided all are married. The son with whom the parents live retains possession of their share during their lifetime. Unmarried sons get a double share of the live-stock, one share, for their marriage expenses. Daughters get no share in the property but if they are unmarried they get one calf each, that being the dowry to be given them at marriage, because during the marriage the bride's side has to give a calf to the brother of the bridegroom. The cattle which the sons get at their marriage are divided. But the cattle which the daughters-in-law received from their fathers, brothers and from their fathers-in-law at the time of marriage are not divided. After the death of the wife of a Santal, her unmarried sons cannot claim a partition even if their father takes a second wife, but they can do so if they like after marriage. If the second wife has no children when the father dies the sons by his first wife will get the share of the father provided they agree to pay for the funeral of their step-mother.

CHAPTER V.

Anthropometric Analysis

One hundred Santal subjects were measured in the Damin areas, of the Santal Parganas within Chota Nagpur in Bihar. All the specimens chosen were adult males, between the ages of 18 to 49 years.

The technique used throughout for taking the actual measurements was that set up by R. Martin, in his "Lehrbuch der Anthropologie".

The data was analysed and tabulated and is given below.

<i>Measurement or Index :</i>	Mean \pm S.E.	S.D. \pm S.E.	C. of V \pm S.E.
Cephalic Index	74.0 \pm 0.32	3.2 \pm 0.72	4.3 \pm 0.96
Nasal Index	80.7 \pm 0.79	7.9 \pm 1.77	9.7 \pm 2.17
Total Facial Index	85.4 \pm 0.42	4.2 \pm 0.94	4.8 \pm 1.07
Upper Facial Index	53.8 \pm 0.37	3.7 \pm 0.83	6.8 \pm 1.52
Altitudinal Index	70.0 \pm 0.56	5.6 \pm 1.25	8.0 \pm 1.79
Orbito-nasal Index	113.6 \pm 0.59	5.9 \pm 1.32	5.1 \pm 1.14
Rel. Hip Width	16.4 \pm 0.11	1.1 \pm 0.25	6.7 \pm 1.49
Ponderal Index	2.8 \pm 0.09	0.09 \pm 0.02	3.2 \pm 0.72
M. Skelic Index	106.6 \pm 0.65	6.5 \pm 1.45	6.0 \pm 1.34
Radio-Humeral Index	72.1 \pm 1.01	10.1 \pm 2.25	14.0 \pm 3.13
Breadth-height Index	103.4 \pm 1.15	11.5 \pm 2.57	11.1 \pm 2.48
Stature	159.3 \pm 0.54	5.4 \pm 1.21	3.3 \pm 0.74
Span	166.0 \pm 0.60	6.0 \pm 1.34	3.6 \pm 0.81
Sitting height	77.1 \pm 0.31	3.1 \pm 0.69	4.0 \pm 0.89
Head length	18.5 \pm 0.06	0.6 \pm 0.13	3.2 \pm 0.72
Head breadth	13.7 \pm 0.05	0.5 \pm 0.11	2.9 \pm 0.65
Head height	12.9 \pm 0.10	1.0 \pm 0.23	7.7 \pm 1.72
Minimum frontal diameter	10.02 \pm 0.12	1.2 \pm 0.09	12.2 \pm 0.87
Nasal height.	4.8 \pm 0.04	0.4 \pm 0.09	6.2 \pm 1.39
Nasal breadth	3.7 \pm 0.03	0.3 \pm 0.07	5.4 \pm 1.21
Upper facial height	7.1 \pm 0.05	0.5 \pm 0.11	7.0 \pm 1.57
Total Facial height	11.3 \pm 0.05	0.5 \pm 0.10	...
External Orb. Br.	9.9 \pm 0.04	0.4 \pm 0.09	4.4 \pm 0.98
Orbito nasal curve	11.3 \pm 0.06	0.6 \pm 0.14	4.0 \pm 0.89
Bizygomatic breadth	13.0 \pm 0.05	0.5 \pm 0.10	3.0 \pm 0.67
Bigonial diameter	9.2 \pm 0.06	0.6 \pm 0.12	5.4 \pm 1.21

SOMATOMETRIC MEASUREMENTS AND INDICES.

TABLE I

Stature among Santals

Mean = 159.3 ± 0.54

Minimum = 147.7 cms

Maximum = 173.3 cms.

Range = 25.3 cms.

Frequency Distribution

<i>Stature Class</i>	<i>Frequency observed</i>	
V. Short	134.0—135.9 cm.	...
	136.0—137.9 cm.	...
	138.0—139.9 cm.	...
	140.0—141.9 cm.	...
	142.0—143.9 cm.	...
	144.0—145.9 cm.	...
	146.0—147.9 cm.	1 PC
	148.0—149.9 cm.	2 ..
Short	150.0—151.9 cm.	5 ..
	152.0—153.9 cm.	12 ..
	154.0—155.9 cm.	9 ..
	156.0—157.9 cm.	11 ..
	158.0—159.9 cm.	12 ..
Below Medium	160.0—161.9 cm.	16 ..
	162.0—163.9 cm.	11 ..
Medium	164.0—165.9 cm.	10 ..
	166.0—166.9 cm.	3 ..
Above Medium	167.0—169.9 cm.	6 ..
Tall	170.0—171.9 cm.	...
	172.0—173.9 cm.	2 PC
	174.0—175.9 cm.	...
	176.0—177.9 cm.	...
	178.6—179.9 cm.	...
V. Tall	180.0—X	...

Stature : With a mean stature of 159.3 cms the Santals can be called "Short" statured according to Martin's classification. The stature however varies

considerably in this sample of the Santals, the shortest specimen being only 147.7 cms, (i.e. Very Short) and the tallest being 173.0 cms (i.e. Tall). The range therefore is 25.3 cms. Fortynine per cent of the subjects measured have a stature below 160.0 cms. (i.e. are short statured) and another 40% are medium and below medium (i.e. below 167.0 cms) Six per cent of the sample are 170 cms; The rest are distributed between the categories of "Very Short" and "Tall". It is interesting to note that not even one specimen was recorded in the "Very Tall" stature group.

TABLE 2.

Cephalic IndexMean = 74.00 ± 0.32

Min = 66.80.

Max. = 82.80.

Range = 16.00

Frequency Distribution

<i>C.I. Class</i>	<i>Frequency observed</i>
Dolichocephalic 64.0—64.9	...
65.0—65.9	...
66.0—66.9	1 PC
67.0—67.9	...
68.0—68.9	4 PC
69.0—69.9	4 "
70.0—70.9	7 "
71.0—71.9	8 "
72.0—72.9	18 "
73.0—73.9	14 "
74.0—74.9	9 "
75.0—75.9	10 "
Mesocephalic 76.0—76.9	4 "
77.0—77.9	7 "
78.0—78.9	6 "
79.0—79.9	3 "
80.0—80.9	2 "

} 75 PC

} 22 PC

	<i>C.I. Class</i>	<i>Frequency observed</i>
Brachycephalic	81.0—81.9	1 PC
	82.0—82.9	2 „
	83.0—83.9	...
	84.0—84.9	...
	85.0—85.4	...
	85.5—X	...

} 3 PC

Cephalic Index: The predominant headform is Dolicocephalic, the mean cephalic Index being 74.00. Of the present samples under study 22 % are Mesocephalic and only 3% are Brachycephalic. The range of the cephalic index varies from 66.8 to 82.8 (i.e. the difference between the maximum and minimum values encountered is 16.0).

TABLE 3.

Nasal IndexMean = 80.7 ± 0.79

Min. = 62.70

Max. = 95.00

Range = 32.30

Frequency Distribution.

	<i>N.I. Class</i>	<i>Frequency observed</i>
Leptorrhine	52.0—54.9	...
	55.0—57.9	...
	58.0—60.9	...
	61.0—63.9	4.0 PC
	64.0—66.9	1.0 „
	67.0—69.9	8.0 „
Mesorrhine	70.0—72.9	12.0 „
	73.0—75.9	17.0 „
	76.0—78.9	21.0 „
	79.0—81.9	6.0 „
	82.0—84.9	10.0 „

} 13 PC

} 66 PC

	<i>N.I. Class</i>	<i>Frequency observed</i>
Platyrrhine	85.0—87.9	9.0 PC
	88.0—90.9	7.0 "
	91.0—93.9	4.0 "
	94.0—96.9	1.0 "
	97.0—99.9	...
	100.0—X	...
		} 21 PC

Nasal Index: Sixty-six per cent of the Santals included in this sample exhibit Mesorrhine i.e. their nasal index falls within the frequency of 70.0 to 84.9. The mean value of the Nasal Index of the sample is 80.7. Platyrrhine members form 21% of the sample, and 13% of the Santals are Leptorrhine. The range of variation of the Nasal Index is 62.7 to 95.0 i.e. 32.3

TABLE 4.

BREAD-HEIGHT-INDEX

Mean = 103.40 ± 1.15

Min. = 76.10

Max. = 114.90

Range = 38.80

Frequency distribution

Frequency distribution			
Br. Height Index Class.		Frequency observed	
Tapeino	71.0—72.9	...	} 3PC
Cephalic	73.0—74.9	..	
	75.0—76.9	2PC	
	77.0—78.9	1 ..	
Metrio	79.0—80.9	1 ..	} 9PC
Cephalic	81.0—82.9	5 ..	
	83.0—84.9	3 ..	
	85.0—86.9	6 ..	
Acro Cephalic	87.0—88.9	3 ..	} 88 PC
	89.0—90.9	7 ..	
	91.0—92.9	11 ..	
	93.0—94.9	12 ..	
	95.0—96.9	14 ..	
	97.0—98.9	12 ..	
	99.0—100.9	6 ..	

<i>Br. Height Index Class</i>	<i>Frequency observed</i>	
Acro Cephalic 101.0—102.9	7 PC	} 88 PC
103.0—104.9	1 "	
105.0—106.9	2 "	
107.0—108.9	4 "	
109.0—100.9	1 "	
111.0—112.9	—	
113.0—114.9	1 "	
115.0—116.9	...	
117.0—118.9	1 "	
119.0—120.9	...	

Breadth-height Index : The mean value of this Index is 103.4, consequently the individuals included in this sample possess crania whose height is greater than its breadth by 1.03 times. The minimum value of this index, recorded for these people is 76.1, and the maximum value is 114.9, and from this we can observe a statistically significant range of variation of 38.8.

TABLE 5
Altitudinal Index

Mean = 70.00 ± 0.56

Min. = 53.50

Max. = 82.30

Range = 28.80

Frequency distribution

<i>Alt. Index Class.</i>	<i>Frequency observed.</i>	
Chamaecephalic 40.0—41.9	—	} 2 PC
42.0—43.9	...	
44.0—45.9	...	
46.0—47.9	...	
48.0—49.9	...	
50.0—51.9	...	
52.0—53.9	1 PC	
54.0—55.9	...	
56.0—57.6	1 PC	

<i>Alt. Index Class</i>	<i>Frequency observed</i>	
Orthocephalic	57.7—59.6	3 PC
	59.7—61.6	4 ..
	61.7—62.5	1 ..
		} 8 PC
Hypsicephalic	62.6—64.5	6 ..
	64.6—66.5	7 ..
	66.6—68.5	13 ..
	68.6—70.5	14 ..
	70.6—72.5	18 ..
	72.6—74.5	12 ..
	74.6—76.5	5 ..
	76.6—78.5	9 ..
	78.6—80.5	4 ..
	80.6—82.5	2 ..
	82.6—84.5	...
	84.6—86.5	...
	86.6—X	...
		} 90 PC

Altitudinal Index: On the average the height of cranium, of the Santal, (head height) is 70% of his maximum head length. Thus the average Santal is Hypsicephalic. Ninety per cent. of the subjects measured show an altitudinal index valued at 62.5% or over. The range of the variation is high, standing at 28.8 units. Eight per cent. of the sample is Orthocephalic and only 2% exhibit Chamaecephaly.

TABLE 6.

Total Facial Index

Mean=85.8±0.42

Min.=76.50

Max.=99.20

Range=22.70

Frequency Distribution

<i>Total Facial Index Class</i>	<i>Frequency observed</i>
Euryprosopic	70.0—70.9
	71.0—71.9

<i>Total Facial Index Class</i>		<i>Frequency Observed</i>	
	72.0—72.9	...	} 34 PC
	73.0—73.9	...	
	74.0—74.9	...	
	75.0—75.9	...	
	76.0—76.9	2 PC	
	77.0—77.9	1 ..	
	78.0—78.9	...	
	79.0—79.9	2 PC	
	80.0—80.9	2 ..	
	81.0—81.9	7 ..	
	82.0—82.9	12 ..	} 30 PC
	83.0—83.9	8 ..	
Mesoprosopic	84.0—85.9	14 ..	} 30 PC
	86.0—87.9	16 ..	
Leptoprosopic	88.0—88.9	13 ..	} 32 PC
	89.0—89.9	6 ..	
	90.0—90.9	4 ..	
	91.0—91.9	5 ..	
	92.0—92.9	4 ..	
Hyper-lepto- prosopic.	93.0—93.9	1 ..	} 4 PC
	94.0—94.9	...	
	95.0—95.9	1 PC	
	96.0—96.9	1 ..	
	97.0—97.9	...	
	98.0—98.9	...	
	99.0—99.9	1 PC	
	100.0—X	...	

Total Facial Index: The mean value for the Index is 85.8, i.e. Mesoprosopic, and the index varies between

the maximum and minimum limits of 76.5. to 99.2
Thirty-six per cent of the sample is Leptoprosopic, 34%
are Euryprosopic, and 30 % are Mesoprosopic.

TABLE 7

Upper Facial Index

Mean = 53.80 ± 0.37

Min. = 45.4

Max. = 75.6

Range = 30.2

Frequency Distribution

<i>Upper Facial Index Class</i>		<i>Frequency Observed</i>	
Hyper-Euryene	40.0—40.9	...	}
	41.0—41.9	...	
	42.0—42.9	...	
Euryne	43.0—43.9	...	}
	44.0—44.9	1 PC	
	45.0—45.9	...	
	46.0—46.9	...	
	47.0—47.9	3 PC	
Mesene	48.0—48.9	3 ..	}
	49.0—49.9	4 ..	
	50.0—50.9	11 ..	
	51.0—51.9	6 ..	
	52.0—52.9	8 ..	
Leptene	53.0—53.9	15 ..	}
	54.0—54.9	14 ..	
	55.0—55.9	12 ..	
	56.0—56.9	8 ..	
Hyper-Leptene	57.0—57.9	7 ..	}
	58.0—58.9	3 ..	
	59.0—59.9	3 ..	
	60.0—60.9	...	
	61.0—61.9	...	
	62.0—62.9	...	

4 PC

32 PC

49 PC

15 PC

*Upper Facial Index Class.**Observed Frequency*

Hyper-Leptene	63.0—63.9	...	} 15 PC
	64.0—64.9	...	
	65.0—65.9	1 PC	
	66.0—66.9	...	
	67.0—67.9	...	
	68.0—68.9	...	
	69.0—69.9	...	
	70.0—70.9	...	
	71.0—71.9	...	
	72.0—72.9	...	
	73.0—73.9	...	} 1 PC
	74.0—74.9	1 PC	
	75.0—75.9	...	

Upper Facial Index: The mean value of this index is 53.8, i.e. on an average the Santals belong to the Leptene category and possesses a moderate facial appearance. Thirty two per cent. of the sample belong to this category 49% of them are Leptene, 4% are Euryene. Hyperleptene faces also occur in 15% of the population.

TABLE 8.

Orbito-Nasal Index among Santals.Mean = 113.6 ± 0.59

Minimum = 101.00

Maximum = 144.30

Range = 43.30

Frequency Distribution

<i>Orbito-Nasal Index Class</i>		<i>Frequency Observed</i>	
Platyopic	100.0—101.9	1 PC	} 21 PC
	102.0—103.9	4 ..	
	104.0—105.9	7 ..	
	106.0—107.9	4 ..	
	108.0—109.9	5 ..	
Mesopic	110.0—110.9	8 ..	} 23 PC
	111.0—112.9	15 ..	

*Orbito-Nasal Index Class**Frequency Observed.*

Pro-opic.	113.0—114.9	12 PC	56 PC
	115.0—116.9	12 ..	
	117.0—118.9	17 ..	
	119.0—120.9	5 ..	
	121.0—122.9	7 ..	
	123.0—124.9	2 ..	
	125.0—126.9	...	
	127.0—128.9	...	
	129.0—130.9	...	
	131.0—132.9	...	
	133.0—134.9	...	
	135.0—136.9	..	
	137.0—138.9	...	
	139.0—140.9	...	
	141.0—142.9	...	
	143.0—144.9	1 PC	
	145.0—146.9	...	
	147.0—148.9	...	
	149.0—150.9	...	
	151.0—N.		

Orbito-nasal Index : The norm for this characteristic is 113.6 i.e. Pro-opic. The range of variation is $101.0-144.3=43.3$ Fifty six per cent. of the Santals have an index of 112.9 or more which means they are Pro-opic, 21% are Platyopic and the rest are Mesopic. So, though Pro-opic individuals are most common, Platyopic or Mesopic groups are not far behind.

Radio Humeral Index : This is a relation of the upper arm to the forearm. Its value has been calculated for 20 Santal subjects only, and the values observed show that the Santal bears a short forearm in relation to his upper arm.

TABLE 9.

Span.Mean = 166.0 ± 0.06

Minimum = 150.2

Maximum = 187.4

Range = 37.2

Frequency Distribution

<i>Span Class</i>	<i>Observed Frequency.</i>
140.0—142.5	...
142.6—145.0	...
145.1—147.5	...
147.6—150.0	...
150.1—152.5	2.0 PC
152.6—155.0	2.0 "
155.1—157.5	5.0 "
157.6—160.0	5.0 "
160.1—162.5	13.0 "
162.6—165.0	14.0 "
165.1—167.5	18.0 "
167.6—170.0	17.0 "
170.1—172.5	9.0 PC
172.6—175.0	7.0 "
175.1—177.5	5.0 "
177.6—180.0	2.0 "
180.1—182.5	...
182.6—185.0	...
185.1—187.5	1 PC
187.6—190.0	...
190.1—192.5	...
192.6—195.0	...
195.1—197.5	...
197.6—200.0	...
200.1—X	...

Span: The Santals of this sample display on an average a "Span" of 166.0 cms. exhibiting thereby a larger span than stature. The index of span to stature varies from 101.7 to 107.2, that is, the range of

variation is equal to 5.5 Here even the lowest value gives an index which indicates that the span is slightly more than the Stature.

TABLE IO.

Relative Hip Width.

Mean = 16.4

Minimum = 13.8

Maximum = 19.6

Range = 5.8

Frequency distribution.

<i>Relative Hip Width</i>	<i>Frequency observed</i>
10.0—10.9	...
11.0—11.9	...
12.0—12.9	...
13.0—13.9	2 PC
14.0—14.9	13 „
15.0—15.9	14 „
16.0—16.9	37 „
17.0—17.9	26 „
18.0—18.9	7 „
19.0—19.9	1 „
20.0—20.9	...
21.0—X	...

Relative Hip Width: The mean index is 16.4, indicating that the average Santal displays a Hip Width which is approximately $1/6$ of his Stature. The range of variation is 13.8 to 19.6; i.e. 5.8. The minimum value is shown by a specimen whose hip is approximately $1/7$ of his Stature.

TABLE II.

Ponderal IndexMean = 2.8 ± 0.11

Minimum = 2.6

Maximum = 3.1

Range = 0.5

Frequency Distribution

<i>Ponderal Index.</i>	<i>Observed frequency</i>
2.0—2.1	...
2.2—2.3	...
2.4—2.5	...
2.6—2.7	18.0 PC
2.8—2.9	75.0 „
3.0—3.1	7.0 „
3.2—3.3	...
3.4—3.5	...
3.6—3.7	...
3.8—3.9	...
4.0—X	...

Ponderal Index : This index determines the relationship between the weight and the height of an individual. Its value fluctuates between the limits 2.6 and 3.1 and the mean stands at 2.8. Twenty-four percent of the Santals measured, show an increase in weight with an increasing stature.

TABLE 12.

Manouvere Skelic Index

Mean = 106.60 \pm 0.65	Minimum = 88.00
	Maximum = 122.50
	Range = 34.5

Frequency Distribution of Manouvere Skelic Index among Santals

<i>M. Skelic Index Class</i>	<i>Frequency Observed</i>
Hyper-Mesati—Skelic 2—84.9	...
Mesati—Skelic 85.0—86.9	...
87.0—88.9	1 PC
89.0—90.0	...
Sub-Makro—Skelic 90.1—92.0	1 PC
92.1—94.0	1 „
94.1—95.0	1 „

Makro-Skelic	95.1—97.0	3 PC
	97.1—99.0	4 „
	99.1—100.0	4 „
Hyper-Makro-Skelic	100.1—102.0	7 „
	102.1—104.0	12 „
	104.1—106.0	7 „
	106.1—108.0	16 „
	108.1—110.0	12 „
	110.1—112.0	10 „
	112.1—114.0	9 „
	114.1—116.0	2 „
	116.1—118.0	6 „
	118.1—120.0	1 „
	120.1—122.0	...
	122.1—124.0	2 PC
	124.1—X	...

Menouvres Skelic Index :—An indication of the relationship between trunk length and leg length, the mean value of this index stands at a figure above 100.00, i.e. 106.6 which means that on an average a Santal measures more on the lower limbs, than what his trunk length records.

This range of variation shown by the index is very wide, i.e. from 88.0—122.5—34.5. In 5% of cases, the trunk length is definitely greater. Eleven percent of the Santal subjects exhibit Macro-skely, i.e. the Menouvres Skelic Index is within the limits (95.1 to 100.0). Out of these Macro-skelics only one bears the value 100.00 of the Index, meaning thereby that the upper and lower limbs are of an equal length. The rest of the Mackro-Skelics share in common the character of a greater trunk length, at the expense of smaller legs, though the relation of two lengths at the greatest value is 20 : 19 respectively, Eighty-four percent (or clear

majority) of the subjects have longer legs that support smaller trunks in comparison i.e. they are Hyper-Mackro-Skeiic.

Comparison of Stature, Cephalic Index and Nasal Index

When Stature, Cephalic Index and Nasal Index are compared it is observed that the greatest concentration of the Santal Cephalic Index is at $76\frac{3}{10}$, which 75% of the subjects possess. Of these 5% have medium noses, of whom 42% are short statured, 4% have a medium stature, 2% are above medium, and 2% are tall. Sixteen percent have flat noses (Platyrrhine), of which 11 are short statured, 3% are of medium stature, and 2% have an Above Medium Stature. Under the Leptorrhine group come 9% individuals of whom 7% possess short stature, 1 is Medium Stature, and the remaining individual of Above Medium Stature.

Twenty-two percent of the sample are grouped under the C. I. frequency of 76.1 to 80.9; of these 14% show Mesorrhinii, and of them 10 are short statured, 4% have Medium stature and the remaining 8 subjects show platyrrhinii and leptorrhinii, in the ratio of 7 : 1. The 7 are short statured and the last man is of medium stature.

Brachycephaly is rare and only 3% fall in this frequency of the Cephalic Index. All are of short stature, two are leptorrhine, and one Mesorrhine.

Therefore taking a birdseye view of the population we see that the majority of the Santals combine dolicocephaly, with short stature and short by medium stature.

Thus we see that 46% of the Santal males investigated, possess the somatic characters, short-medium stature; Dolicocephaly; and Mesorrhine; characters which Haddon would term a blend between the Dravidian and Pre-Dravidian strains. Fourteen percent of the sample is Short-Medium statured, Dolicocephalic, and Platyrrhine, characteristics of the "Dravidian" according Haddon and his followers. The typically Dravidian type, of Short-Medium stature, Dolicocephalic, and leptorrhine, number 8%. There is an intermixture of the Pre-Dravidian and Dravidian elements, on the one hand, and an Alpine or Pamirian element on the other, among 14⁰/₁₀₀, who show Short-Medium stature, show Mesocephaly, and are Mesorrhine.

Santals : (A Study in Somatoscopic Characters).

Skin Colour :—The unexposed skin varies in colour from light brown (17) to dark brown (26)*. Ninety-eight percent of the Santals are dark-brown, and a negligible 2% are light brown.

Hair Form :—Low waves occur in 84% of the Santals surveyed, and 8% have straight hair. The remaining 8% can be accounted for, by curly, deep waves, and medium wave forms in the proportion of 5 : 2 : 1. Woolly hair is conspicuous by its absence.

Hair Texture :—Hair of medium texture occurs in 81% of the people, and there are 16% of the sample with coarse hair. Fine textured hair is rare and occurs among only 3%.

*The numbers in parenthesis indicate the colours on the skin chart devised by Von Lushan.

Hair Quantity :—Thick growth in 21.0% ; medium in 65% ; and normal in 14.0% the hair quantity displays no eccentricities. This characteristic was only visually observed. No attempt was made to count the number of follicles in a given area of skin, as this would have entailed too much time.

Hair Colour :—The hair displays black pigment in 94% cases, and 5% of the cases have dark brown hair. 1% have light brown hair. No other hair colours are found.

Eyecolour :—Eightynine percent of the Santals have dark brown eyes, corresponding to No. 3 of Martin's Eye Colour Chart. Light brown and black eyes ; i.e. Nos. 4 and 2 of Martin's Eye Chart are present in the remaining population in 6% and 5% respectively. No other colour were noted.

Iris :—Leaving the 1% with a speckled iris, the other 99% possess eyes in which the iris is homogenous.

Eyeslits :—All the eyeslits examined were straight. There is no trace of oblique eyeslits.

Epicanthic fold :—This easily recognizable characteristic of the Mongoloid people was completely absent.

Eyebrows :—Seventy-six percent of the sample shows medium eyebrows. There are 19% thin eyebrows, and only 5% have thick and connected eyebrows.

Supra-orbital ridges :—Trace of the supra-orbital ridges can be seen in 60%. Thirty-seven percent have imperceptible ridges, 2% have moderate and 1% continuous eyebrow ridges. Pronounced development of the eyebrow ridges is absent.

Nasion Depression :—The nasion depression is medium in 65%. In 20% the depression is shallow, and in the remaining 15% the depression is deep.

Nasal Bridge :—Santals display a monotonous straight bridge. No other varieties could be seen.

Nasal Septum :—Horizontal in 93%, upwards in 4% and downwards in 3%.

Forehead :—Sixty-seven percent of the sample display a straight and broad forehead. Sloping and medium foreheads are observed in 24%. A high forehead with a medium slope occurs in 8%, and 1% possess forehead with a marked slope.

Lips :—Medium lips are by far the most common (60%), with thick lips coming next, (32%), and thin lips last, (8%) in this sample.

Eversion :—Seventy percent have a slight eversion and 23% display eversion of medium intensity. Four percent reveal marked eversion, and only 3% do not have everted lips.

Chin :—Medium and oval chins occur in 80%, prominent and oval chins in 19%, and a square chin in 1%. The receding and pointed chins are not observed.

Prognathism :—Though prognathic jaws are only slightly so, the majority of the population exhibits this trait. Fifty-eight percent exhibit alveolar prognathism and slight facial prognathism is observed in 35%. Seven percent do not show prognathism. No marked prognathic face was seen.

Ear lobe :—Fifty-six percent have an attached ear-lobe, and it was absent in only 4%.

Incisor fold :—Only 1% showed a slight incisor fold.

Body :—Seventy four per cent had bodies of medium musculature, and 14% were weakly built. The remaining 12% were markedly well built.

Santal (Correlation).

Table showing co-efficients of co-relation with Probable Errors

1. Head Length and Head Breadth :— 0.0016 ± 0.067
2. Nasal height and Nasal Breadth :— 0.29 ± 0.061
3. Total facial height and Bizygomatic Breadth :— 0.61 ± 0.042
4. Upper facial height and Bizygomatic breadth :— 0.26 ± 0.062
5. Head length and Head height :— 0.18 ± 0.064
6. Head breadth and Head height :— 0.28 ± 0.061
7. External Orbital breadth and Orbito-nasal curves :— 0.75 ± 0.029
8. Height vertex and Maximum Hip Breadth :— 0.24 ± 0.063

1. *Head Length and head breadth* :—There has been found to be, after tabulation and calculation, very little (insignificant) positive correlation between the variables 'Head Length' and 'Head Breadth' in the case of this sample. No doubt, on an average, the increase in the Head Length of a Santal individual is accompanied by a corresponding increase in his Head Breadth yet the co-efficient of correlation (0.0016) is of no standing.

2. *Nasal Height and Nasal Breadth* :—These measurements are of great significance from the somatometric point of view, for they enable us to evaluate

Nasal Index, which is one of the chief criteria for the determination of racial affinities. My Santal subjects have an ascending value of these variables, i.e. a positive correlation has been found to exist in their case. The actual value of the coefficient of correlation between the Nasal Height and Nasal Breadth stands at 0.29, a figure which in terms of Biometry means a small correlation, though it cannot be called insignificant.

3. *Total Facial Height and Bizygomatic Breadth*:—A high degree of positive correlation has been found in the case of these variables. The actual value of the co-efficient stands at 0.61 (i.e. above 0.50) which denotes a fair amount of correlation.

4. *Upper Facial Height and Bizygomatic Breadth*:—A moderate degree of correlation, of a positive character exists between the upper Facial Height and the Bizygomatic Breadth of the Santals that have been subjected to investigation. The co-efficient has been evaluated at 0.26.

5. *Head Length and Head Height*:—On an average the head length of a man from Santal Parganas increases with his Head Height and vice versa. No case has been recorded which might suggest an exception to the rule. The co-efficient of correlation which determines the rate of increase in one variable due to an increase in the other has been calculated as 0.18.

6. *Head Breadth and Head Height*:—By comparison with the variables considered in the previous paragraph a greater amount of correlation and that too, in a positive direction has been recorded in the present

case. The coefficient of correlation that has been arrived at, amounts to 0.28.

7. *External Orbital Breadth and Orbito Nasal Curve* :—These anthropometric measurements reveal a direct mutual dependence, for they have been found in possession of a value of the co-efficient of correlation which stands exactly midway between the value representing a fair degree of correlation (0.50) and complete harmony or correlation (1.00). The title of substantive correlation may be assigned to the value of the co-efficient (0.75) that we get in this case.

8. *Height Vertex and Maximum Width*—Once again, we get a positive correlation between the two variables under consideration, the actual co-efficient standing at 0.24.

The co-efficient of mean square contingency*. "Prof. Karl Pearson's coefficient of mean square contingency permits the measurement on a scale from zero to unity of the degree of association of pairs of attributes, without any assumption as to their continuous distribution in a scale variation and irrespective of the order in which these pairs of attributes occur. Thus, if it is desired to measure the association between hair colour and eye colour or between type of offense and hair colour, such a co-efficient is most useful. What the co-efficient of mean square contingency actually measures is the degree to which the various combinations of pairs of attributes depart from a purely chance distribution or from independence. According to the law of probability if the frequency of A_m 's be denoted by (A_m) and the

*The American Criminal, E.A. Hooton. p. 53.

frequency of B_n 's by (B_n) , and the frequency of objects or individuals possessing both characters $(A_m B_n)$, then if A's and B's be completely independent in the universe at large $(A_m B_n) = \frac{(A_m)(B_n)}{N} = (A_m B_n)_o$. In other words the expected Frequency of combination of pairs of attributes is equal to the product of the total number of frequencies of attributes A in the series and the total number of frequencies of attribute B in the series divided by N (the total number of observations of the series). $(A_m B_n)_o$ may be called the INDEPENDENCE FREQUENCY. The coefficient of mean square contingency is based upon the difference between the expected or independence frequencies and the actual frequencies. However, since some of the differences are minus and some are plus, a mere addition might cancel them out. Therefore, in order to obviate the difficulty the differences are squared and expressed as a ratio of the expected frequencies. Thus we have

$$\sum \left(\frac{(A_m B_n) - (A_m B_n)_o}{(A_m B_n)_o} \right)^2$$

and by reduction, since the sum of both the (AB) 's and the $(AB)_o$'s is equal to the total number of observations, N:

$$\sum \left(\frac{(A_m B_n)^2}{(A_m B_n)_o} \right) - N$$

The expression in brackets is then the sum of the squares of the actual frequencies of the pairs of attributes divided by their expected (independence) frequencies. If this expression be denoted by S, we have for C, the coefficient of mean square contingency, $C = \sqrt{\frac{S-N}{S}}$. This coefficient expresses on a scale

between zero and unity the extent to which the pairs of attributes in their actual combinations depart from chance expectation."

"The coefficient of Mean Square contingency can be zero only when there is no deviation from the Independent Frequency in any compartment of the table. Such a condition cannot be realized in limited samples and consequently the coefficient is more than zero in any case. In other words, some part of the value of the coefficient is attributable to the sampling process. A correction for this may be introduced, but this is hardly necessary if the coefficient is interpreted with caution. In any extent, the coefficient indicates nothing more than the extent to which the associations of the two attributes depart from independence."

1. Association between the hair colour and eye colour of Santals.

As seen before in a study of physical observation the majority of our subjects have black hair (94.0 p.c) and the eye colour is dark-brown (corresponding to No. 3 of Martin's eye-chart, in 89.0 percent instances.

- (i) The number of individuals with black colour of hair but without the eyes of dark brown colour = 12 *i.e.* A_m in the Formula = 12.
- (ii) The number of individuals having dark-brown eyes, but not black hair, *i.e.* B_n = 6.
- (iii) The number of individuals, in whom both the attributes (*i.e.* black hair and dark brown eyes) are present = 82. *i.e.* $(A_m B_n)$ in the formula = 82.

Therefore Expected Frequency $(A_m B_n)_o$ can be found out by the application of the relation $(A_m B_n)_o = \frac{(A_m (B_n))}{N}$. Hence $(A_m B_n) = \frac{12 \times 6}{100} = 0.72$.

C, the coefficient of Mean square contingency = $\sqrt{\frac{S-N}{S}}$ where S=sum of the squares of the actual frequencies of the pairs of attributes, ÷ Independence frequencies. From our data $S = \frac{(12)^2 + (6)^2}{0.72} = \frac{180}{0.72} = 250$

$$\therefore c = \sqrt{\frac{250-100}{250}} = \sqrt{\frac{15}{25}} = \frac{3.8}{5} = 0.76$$

Thus we find that the coefficient of Mean Square contingency which determines the association between the Hair Colour and Eye Colour of our Santal subjects is 0.76 (below unity). In other words the pairs of attributes under consideration (Hair Colour and Eye colour) in actual combinations depart from chance expectation to a considerable extent.

2. Association between the skin colour and eye colour of Santals:

We have already noted under physical observations that a clear majority of Santals show a dark brown colour on the skin as well as in their eyes. The former class is represented by 98.0 percent individuals, and 89.0 percent individuals can be included in the latter classification.

It is further brought out that there are only ten individuals in a total of hundred whom we have studied, who have dark brown skins alright but without dark eyes. On the other hand not a single individual exists having eyes of a dark-brown colour, without the skin tinted with the corresponding colour. So that in the

mathematical relation that enables us to arrive at the expected or independent frequency $(A_m B_n)_0$, $A_m = 10$ and $B_n = 0$.

FORMULA—Independent Frequency $= \frac{(A_m) (B_n)}{N}$, where N in the denominator represents the number of individuals examined for the pair of attributes under investigation.

Hence we get on the actual application of the values, the value of $(A_m B_n)_0$ or Independent Frequency $= \frac{(10 \text{ (Zero)})}{100} = 0$. Actual counting reveals that both the attributes $(A_m \text{ and } B_n)$ are present in no less than ninety (90) individuals, i.e. $(A_m B_n) = 90$.

Now, in order to find out the coefficient of mean of the actual frequencies of the pairs of attributes square contingency, we must know S ; S stands for the sum of the squares divided by Independence Frequencies.

S , according to our data $\frac{(10)^2 + (0)^2}{0} = \frac{100}{\text{Zero}} = (\text{Infinite})$

Therefore C or the coefficient of Mean Square contingency $= \sqrt{\frac{S \cdot N}{S}} = \sqrt{\frac{\infty \cdot 100}{\infty}} = \text{ZERO}$

The zero value of the coefficient implies that there is no deviation from the Independent Frequency, a condition which is a rare occurrence in limited samples.

3. Association between colour of skin and hair colour of Santals.

While studying the physical features of Santals, we noted that a majority of them (94.0 p.c. have black hair and that in a greater majority still (98.0 p.c.) they possess skins of dark-brown colour.

It has been further noted that six percent individuals show a dark-brown skin colour, but not the presence of black hair. They can be represented by A_m in the formula to find out the Independence Frequency. Those who show vice versa features i.e. (black hair minus Dark-Brown Skin) are accounted by 38 in a total of hundred ($N=100$). We can call them by the symbol B_n in the formula for Independence Frequency. The remaining individuals, who constitute fifty six percent of the aggregate possessed both attributes ($B_m B_n$).

$$\text{Independence Frequency } (A_m B_n)_0 = \frac{(A_m B_n)}{N} = \frac{6 \times 38}{100} = 2.28$$

The coefficient of Mean Square contingency, $C =$

$$\sqrt{\frac{S-N}{S}}, \text{ where } S \text{ and } N \text{ have their usual meanings.}$$

$$S \text{ according to our data} = \frac{(A_m)^2 + (B_n)^2}{(A_m B_n)_0} = \frac{(6)^2 + (38)^2}{2.28}$$

$$= \frac{1480}{2.28} = 649.1$$

$$\therefore C = \sqrt{\frac{S-N}{S}} = \sqrt{\frac{649.1 - 100}{649.1}} = \sqrt{\frac{549.1}{649.1}}$$

$$= \frac{23.4}{25.4} = 0.9$$

The numerical value of the coefficient of Mean Square contingency in this case can be interpreted as drifting in a remarkable measure from chance expectation of the attributes (skin colour and hair colour) when seen in actual combinations.

TABLE 13

Showing the averages of the different Somatic measurements
of some tribes of India.

Name of tribes	Kharia	Kol	Iluva	Santal	Munda	Oraon	Hill Marias	Bison Horn Marias	Mal Paharia	Santal	Santal
Locality	Chota Nagpur	U.P.	S. India	Bengal	Chota Nagpur	Chota Nagpur	Bastar State	Bastar State	Bengal	Santal Parganas	Santal Parganas
Number of subjects Measured by	78 Risley	32 Risley	50 Guha	100 Risley	100 Risley	100 Risley	100 Roy	50 Roy	100 Risley	100 Chatterji & Kumar	100 Biswas
Stature	1601.0	1650.0	1594.90 ±4.33	1614.0	1589.0	1621.0	1627.0	1617.0	1577.0	1604.78 ±6.74	1593.0 ±5.40
Max. Head Length	184.4	183.1	190.02 ±0.48	184.8	185.9	184.6	185.39	181.38	183.4	185.27 ±0.65	185.0 ±0.06
Max. Head Breadth	137.4	132.6	139.34 ±0.50	140.7	138.6	139.3	138.71	138.46	139.1	138.35 ±0.54	137.0 ±0.05

Name of tribes	Kharia	Kol	Uruva	Santal	Munda	Oran	Hill Marias	Bison Horn Marias	Mal Paharia	Santal	Santal
Locality	Chota Nagpur	U.P.	S. India	Bengal	Chota Nagpur	Chota Nagpur	Bastar State	Bastar State	Bengal	Santal Parganas	Santal Farganas
Auricular height	129.8	127.2	119.62 ±0.64	128.5	129.2	129.2	119.93	117.14	126.5	123.37 ±0.37	129.0 ±0.10
Min. Frontal breadth	101.0	97.1	101.22 ±0.36	102.1	101.5	101.9	101.66	100.16	100.5	101.27 ±0.60	100.2 ±0.12
Max. Bizygomatic breadth	130.8	130.8	128.76 ±0.43	132.5	130.7	130.4	132.17	130.68	130.9	130.64 ±0.32	130.0 ±0.50
Bigonial Breadth	...	...	96.64 ±0.55	...	...	...	88.03	86.50	...	97.29 ±0.43	92.0 ±0.60
Inter Orbital	...	...	31.22 ±0.26	...	...	...	32.23	36.44	...	30.99 ±0.13	...
Orbitonasal Arc	...	...	111.22 ±0.50	...	...	...	110.05	107.92	...	112.13	113.0 ±0.60
Nasal Height	45.3	44.0	49.38 ±0.31	45.7	44.7	46.2	48.97	49.04	44.1	48.30 ±0.36	48.0 ±0.40

Nasal Breadth	40.1	36.2	36.98 ± 0.22	40.6	40.2	39.8	39.68	39.84	41.0	37.80 ± 0.20	37.0 ± 0.30
Nasal depth	...	...	23.32 ± 0.21	...	...	...	16.33	15.86	...	16.30 ± 0.13	...
Superior Facial Height	...	...	64.26 ± 0.38	...	...	...	65.60	63.84	...	58.23 ± 0.41	71.0 ± 0.50
Total Facial Height	...	...	115.44 ± 0.60	...	...	...	113.22	110.40	...	111.76 ± 0.62	113.0 ± 0.50
Horizontal circumference of Head	...	...	534.44 ± 1.48	...	...	...	...	...	...	534.10 ± 0.12	...
Transverse Arc	...	...	331.46 ± 0.91	...	...	...	...	...	...	326.00 ± 0.12	...
Sagittal Arc	...	...	307.12 ± 1.13	...	...	...	...	...	...	334.60 ± 0.13	...

Dermatoglyphics of the Santals.

Palmar Prints: In the following pages I have embodied the result of my study on 50 hand prints of 25 Santals. All belong to male sex.

Main-line formulae: It has been observed that the frequency of the three typical formulae 11.9.7., 9.7.5., and 7.5.5. varies in different races.

The following types of formulae are obtained, in the right and left palms of the Santals.

TABLE I.

<i>No.</i>	<i>Right hand</i> <i>Types of formula</i>	<i>No.</i>	<i>Left hand</i> <i>Types of formula</i>
1	11.9.7.5.	1	11.9.7.5.
2	11.7.7.5.	2	11.7.7.3.
3	11.7.7.3.	3	9.9.5.5.
4	9.9.7.5.	4	9.7.5.5.
5	9.9.5.5.	5	9.6.5.5.
6	9.9.5.3.	6	7.9.5.5.
7	9.7.5.5.	7	7.7.5.5.
8	9.6.5.5.	8	7.5.5.5.
9	7.5.5.5.	9	7.5.5.4.
10	7.5.5.3.	10	7.5.5.3.
		11	7.5.5.1.

It can be seen from Table I that the different types of formula appear more in the left hand than in the right hand. In the left hand I have got eleven and in the right ten.

The following fourteen different types of formulae are obtained.

TABLE II.

<i>Formula</i>	<i>Right Hand</i>	<i>Left Hand</i>	<i>Sum</i>	<i>Percentage</i>
7.5.5.1.	0	1	1	2
7.5.5.3.	2	1	3	6
7.5.5.4.	0	1	1	2
7.5.5.5.	1	2	3	6
7.7.5.5.	0	2	2	4
7.9.5.5.	0	1	1	2
9.0.5.5.	2	1	3	6
9.9.5.3.	1	0	1	2
9.7.5.5.	4	8	12	24
9.9.7.5.	1	0	1	2
9.9.5.5.	1	1	2	4
11.7.7.3.	0	1	1	2
11.7.7.5.	1	0	1	2
11.9.7.5.	12	6	18	36
Total	25	25	50	100

In the table III the frequency of the three typical formulae in percentages is given.

TABLE III.

<i>Formula</i>	<i>Right Hand</i>	<i>Left Hand</i>	<i>Sum</i>
11.9.7.-	24.0	12.0	36.0
9.7.5.-	8.0	16.0	24.0
7.5.5.-	6.0	10.0	16.0

The formula 11.9.7- appears in larger numbers in the right hand whereas the formulae 9.7.5.- and 7.5.5.- occur in larger proportion in the left hand.

The following table shows the frequency of the three main-line formulae among the Santals and other races.

TABLE IV.

Main-line Formula in Percentage.

<i>People.</i>	<i>11.9.7.-</i>	<i>9.7.5.-</i>	<i>7.5.5.-</i>	<i>Authors.</i>
Japanese.	16.0	19.0	24.3	Wilder
Japanese.	17.7	16.9	33.0	Hasebe
Chinese	9.0	23.5	27.5	Wilder
Chinese.	18.1	19.3	32.0	Shino
Koreans.	18.1	17.1	32.0	Miyake
Eskimos.	30.3	41.4	6.6	Abel
Europeans.	31.0	26.2	10.1	Cummins
Rajis.	33.0	30.0	7.0	Tiwari.
Bhotias.	18.0	20.0	22.0	Tiwari.
Ainu.	18.2	18.2	19.1	Hasebe
Indians.	44.2	11.5	15.4	Schlaginhausen
Indians.	46.0	15.0	18.0	Biswas
Oriyas.	29.0	18.0	19.0	Biswas & Chaudhury
Bengalis.	33.0	34.0	19.0	Biswas.
Santals.	36.0	24.0	16.0	Biswas.

By studying the above table it can be seen that in Santal palms the formula 11.9.7.- occurs in larger number like the European-Americans, Bengalis, Oriyas, Indians (in general). But the formula 7.5.5.- occurs in larger number among the Japanese, Chinese and Koreans. In the Ainu hand both the formula appear almost in equal number.

According to Wilder 7.5.5. (1-5) is the Negro formula and 11.9.7 (1-5) is the white. In the Santals the Negro formula is found in 16% and the white in 36%.

TABLE V.

<i>Races</i>	<i>Negro formula</i> <i>7.5.5(1-5)</i>	<i>White formula</i> <i>11.9.7(1-5)</i>	<i>Authors</i>
Japanese	33.0	17.7	Hasebe
Koreans	32.0	18.1	Miyake
Chinese	32.0	18.1	Shino

<i>Races</i>	<i>Negro formula</i> 7.5.5(1.5)	<i>White formula</i> 11.9.7(1.5)	<i>Authors</i>
Ainus	19.1	18.2	Hasebe
Indians (in general)	15.4	44.2	Schlaginhaufen
Indians (in general)	18.0	46.0	Biswas
Rajis	7.0	33.0	Tiwari
Bhotias	22.0	18.0	Tiwari
Oriyas	19.0	29.0	Biswas & Choudhury
Bengalis	19.0	33.0	Biswas
Santals	16.0	36.0	Biswas

Among the Mongolians the Negro formula occurs in larger numbers whereas among the Santals, Oriyas, Bengalis and Indians in general, the white formula appears in greater number. In the Ainus they appear almost in equal numbers.

TABLE VI.

Main Lines

In the table below the frequencies of the different endings of the four main lines D, C, B, A, are given.

Endings	<i>Right hand</i>				<i>Left hand</i>			
	D	C	B	A	D	C	B	A
0		2				1		
1								1
2								
3				3				2
4								1
5		3	11	22		5	18	21
6								
7	3	6	14		8	11	7	
8								
9	9	14			10	8		
10								
11	13				7			
12								

The line D ends in the three following areas 11, 9, 7. This line ends 20 times on the area 11 and 19 times on the area 9 and 11 times on the area 7, which signifies that the main line D runs always to the radial side. The line D ends frequently on the areas 11 and 9. The

same is the case with the population of Europeans in America. But among the Mongolians the line D ends more often in the area 7 and for the Ainus in 9.

The line C ends on the areas 0,5,7 and 9 end on the area 9 and 7 in larger numbers. Among the Santals the line C runs both to the radial and ulnar sides, but more to the radial side. The same is the case among the Oriyas, Bengalis and European-Americans. But among the Mongolians it is quite the reverse.

The line B always runs to the ulnar side. It ends on the areas 5 and 7, of which area 7 claims larger numbers. The line A ends on the areas 1,3,4,5; but mostly on the area 5. That shows the main line A runs always towards the ulnar side.

Thus the line D, in the case of Santals like the Indians (in general) Oriyas, Bengalis and Europeans ends more frequently on the area 11 whereas in the case of Mongolians it ends on the area 7. The line C,B,A of the Santals ends on the areas 9,7,5- respectively and the same is the case in the Oriyas, Bengalis, Europeans-Americans, whereas in the case of Mongolians they all end mostly on the area 5. In the Chinese hand the line A ends often on the area 3.

Asymmetry of the four Main lines (D.C.B.A) on the Right & Left Hand.

The endings of the four Main lines show a marked difference between the right and left hand. The line D on the right hand ends on the area 11 in larger numbers (52%) whereas on the left hand it ends more frequently (40%) on the area 9. On the area 7 the line D runs on the right hand in 12% and on the left hand in 32%.

The line C ends on the area 9 in larger numbers, in the right hand in 56% and in the left hand in 32%. On the area 7 this line ends in 24% in the right hand, and in the left hand it ends in 44%. On the area 5, the line C ends in 12% in the right and 20% in the left hand.

The line B ends on the areas 5 and 7 in both the hands. On the area 5 it ends in 44% in the right hand and in 72% in the left hand. On the area 7 it ends in the right hand in 56% and in the left hand in 28%.

The line A ends in the right hand on the areas 3 and 5 in 12% and 88% respectively whereas in the left hand it ends on the areas 1, 3, 4 and 5 in 4%, 8%, 4% and in 84% respectively.

Pattern on the Hypothenar areas

On the Hypothenar area of the human palm various types of patterns appear. The frequency of the appearance of patterns on this area of the Santal hands is given in the table below.

TABLE VII

<i>Patterns</i>	<i>Right Hand</i>	<i>Left Hand</i>	<i>Total</i>	<i>%</i>
<i>I_r</i>	3	2	5	10
<i>I_u</i>	3	5	8	16
<i>I_u/I_r</i>	1	...	1	2
<i>A_u</i>	2	...	2	4
<i>A_r</i>	2	...	2	4
<i>A_r</i>	...	1	1	2
<i>O</i>	14	17	31	62
<i>Total.</i>	25	25	50	100

From the table above it appears that Pattern 'loops' occur in larger numbers. Loops opening towards the ulnar side occur in 16%, and loops opening towards the radial side in 10%.

Comparative Table on the appearance of Loop in the hands of different races.

TABLE VIII.

<i>Race</i>	<i>%</i>	<i>Hands</i>	<i>Authors</i>
Japanese	29.3	552	Hasebe
Chinese	16.9	616	Shino
Koreans	23.5	268	Miyake
Eskimos	20.7	135	Abel
Ainus	36.4	110	Hasebe
Red Indians	5.4	37	Cummins
American Europeans	37.17	600	Cummins
American Europeans	41.0	200	Wilder
Rajis	16.0	100	Tiwari
Bhotias	15.0	100	Tiwari
Bengalis	20.0	100	Biswas
Oriyas	35.0	100	Biswas & Chondhury
*Indians (General)	32.0	100	Biswas
*Indians (General)	42.5	52	Schlaginhaufen
Santals	28.0	50	Biswas

From the above table it appears that among Chinese, Koreans, Eskimos, Red Indians and Bengali hands, the pattern 'loop' occurs in the hypothenar in lesser number than the other races.

Pattern on the Thenar Area.

TABLE IX

<i>Pattern</i>	<i>Right Hand</i>	<i>Left Hand</i>	<i>Total</i>	<i>%</i>
Loop	1	2	3	6

Loops on the thenar area appear in the lesser number in the Santal hands. In table below I am citing how loops appear in other races.

*Excluding the primitive people of India.

TABLE X

<i>Race</i>	<i>%</i>	<i>Hands</i>	<i>Authors</i>
Japanese	5.3	552	Hasebe
Chinese	11.4	616	Shino
Koreans	16.5	268	Miyake
Red Indians	48.0	37	Cummins
Eskimos	4.4	135	Abel
Rajis	4.0	100	Tiwari
Bhotias	8.0	100	Tiwari
Bengalis	14.0	100	Biswas
Oriyas	7.0	100	Biswas & Choudhury
Indians	13.0	100	Biswas
Indians	15.3	52	Schlaginhaufen
Ainus	5.5	110	Hasebe
American Europeans	5.5	600	Cummins
Santals	6.0	50	Biswas

The frequency of patterns on the hypothenar and thenar areas in percentages of the total number of the hands investigated and frequency proportions between one another in different areas are given in the following table.

TABLE XI

<i>Race</i>	<i>Thenar</i>	<i>Proportions</i>	<i>Hypothenar</i>
Japanese	5.3	1:5.5	29.3
Chinese	11.4	1:1.4	16.9
Koreans	16.5	1:1.4	23.5
Eskimos	4.4	1:4.7	20.7
Red Indians	48.0	1:0.1	5.4
Bengalis	14.0	1:1.4	20.0
American Europeans	5.5	1:6.7	37.1
Indians	15.3	1:2.7	42.5
Indians	13.0	1:2.5	32.0
Oriyas	7.0	1:5.0	35.0
Ainus	5.5	1:6.6	36.4
Santals	6.0	1:4.7	28.0

Pattern on the Interdigital Areas

On the human palm there are four interdigital areas I, II, III and IV. For my work I have considered the Interdigital area I not separately but jointly with the thenar. On the other three interdigital areas some patterns generally the loop, nebentriradius and whorl occur. In my data on the Santal hand I have got some patterns which are given in the table below.

TABLE XII.

<i>Patterns</i>	<i>Area II</i>				<i>Area III</i>				<i>Area IV.</i>			
	Rt.	Lt.	Sum	%	Rt.	Lt.	Sum	%	Rt.	Lt.	Sum	%
Loop	1	0	1	2	7	2	9	18	8	9	17	34
Nebentriradius with loop									4	1	5	10
No pattern	24	25	49	98	18	23	41	82	13	15	28	56
Total	25	25	50	100	25	25	50	100	25	25	50	100

In the Santal hand loops on the areas III and IV occur in considerable numbers (18% on III and 34% on IV). Nebentriradius with loops occur on the IV interdigital area in 10%.

Occurrence of Pattern Loop on the 3rd and 4th Interdigital Areas of Different races is given below.

TABLE XIII.

<i>Races</i>	<i>Area III</i>	<i>Proportion</i>	<i>Area IV</i>	<i>Author.</i>
Japanese	16.5	1:3.3	54.6	Hasebe
Chinese	22.7	1:2.4	55.1	Shino
Koreans	14.9	1:3.7	55.2	Miyake
Esquimos	48.05	1:1.2	60.8	Abel

<i>Races</i>	<i>Area III</i>	<i>Proportion</i>	<i>Area IV</i>	<i>Author</i>
Red-Indians	15.7	1:4.9	76.6	Cummins
Bhotias	30.0	1:2.5	75.0	Tiwari
Bengalis	24.0	1:0.9	22.0	Biswas
Oriyas	33.0	1:1.9	36.0	Biswas & Choudhury
Indians	61.5	1:0.5	34.6	Schlaginhaufen
Indians	49.0	1:0.6	30.0	Biswas
European	40.8	1:1.2	49.0	Cummins
European	37.0	1:0.6	22.0	Wilder
Santal	18.0	1:1.9	34.0	Biswas

The combination Formula of the three Interdigital areas of 50 Santal hands.

TABLE XIV.

	<i>II</i>	<i>III</i>	<i>IV</i>	<i>Right</i>	<i>Left</i>	<i>Sum</i>	<i>%</i>
1	0	S*	0	4	1	5	10
2	0	0	S	8	8	16	32
3	0	0	0	7	14	21	42
4	0	S	T	2	0	2	4
5	0	0	T	3	1	4	8
6	S	S	0	1	0	1	2
7	0	S	S	0	1	1	2

The combination Formulae of the three Interdigital areas of different races are given in the following table.

TABLE XV.

<i>Races</i>	<i>O.O.S.</i>	<i>O.O.O</i>	<i>O.S.O</i>	<i>Author</i>
Japanese	53.1	22.1	13.6	Hasebe
Chinese	54.1	13.9	15.1	Shino
Koreans	51.1	20.9	10.5	Miyake
Ainus	40.9	19.1	21.4	Hasebe
Rajis	21.0	15.0	15.0	Tiwari
Bhotias	29.15	10.45	13.35	Tiwari
Indians	29.0	9.0	27.0	Biswas
Oriyas	21.0	39.0	17.0	Biswas & Choudhury
Bengalis	26.3	45.0	11.0	Biswas
Santals	32.0	42.0	10.0	Biswas

*"S" Signifies loop pattern.

By combining the three Interdigital areas I have obtained seven different formulae. From the table it can be seen the three formulae O-S-O, O-O-S and O-O-O appear in higher frequency in the Santal hand.

From the table it can be seen that among the Mongolians, Ainus, Bengalis and Santals the formula O-O-S appears more than that of the O-S-O. Whereas in the hands of the Oriyas and Indians in general, the difference in the appearance of the above two formulae is very little.

Axial Triradius

TABLE XVI.

<i>Axial Triradius</i>	<i>Right Hand</i>	<i>Left Hand</i>	<i>Total</i>
t	18	18	36
t'		1	1
tt'	2	2	4
tt*	1	2	3
ttt*	1		1
tt't ^u	1		1
pt	1	1	2
pt*	1		1
pt't*		1	1
Total	25	25	50

From the above table it appears that, t(carpal triradius) occurs in greater number than the others.

S Signifies Loop pattern

Finger Prints : The data collected on the Santals included impressions of all the fingers of 21 male individuals. The analysis of the data is given below :

The following table shows the frequencies of the three patterns, in percentages, for both the hands

Frequencies of finger-print patterns

TABLE I

Digit	Hands	<i>Pattern types</i>				
		Whorls	Ulnar	Radial	Total	Arch
I	R	71.42	23.80	4.76	28.56	...
	L	57.14	42.85	...	42.85	...
	R+L	64.28	33.33	2.38	35.71	...
II	R	42.85	42.85	9.52	52.37	4.76
	L	42.85	38.09	19.04	57.13	...
	R+L	42.85	40.47	14.28	54.75	2.38
III	R	38.09	61.90	—	61.90	...
	L	47.61	52.38	...	52.38	...
	R+L	42.85	57.14	...	57.14	...
IV	R	71.42	28.57	...	28.57	...
	L	71.42	28.57	...	28.57	...
	R+L	71.42	28.57	...	28.57	...
V	R	33.33	66.66	...	66.66	...
	L	28.57	71.42	...	71.42	...
	R+L	30.95	99.04	...	69.04	...
ALL DIGITS	R	51.42	44.76	2.86	47.62	0.95
	L	49.52	46.66	3.81	50.47	...
	R+L	90.47	45.71	3.34	49.05	0.47

The first fact that comes to notice when one observes this table is the paucity of arches. Only the second digit displays arches, and that even, only on the right hand. Whorls occur in comparatively high frequency on the I and IV digits, and the striking factor about loops is that no radial loops are observed on the III, IV and V digits of both hands.

Summing up the frequencies for all patterns on all the digits, whorls (50.47%) and Ulnar patterns (45.71%) and most frequent, radial loops (3.34%) less frequent, and arches negligible (0.47%).

TABLE II
Percentages of Whorls, Loops and Arches in different races

Race	Whorls	Loops	Arches	Author
Bushmen	15.1	68.5	16.4	Weninger '36
Hottentot	18.6	76.3	5.1	Fleischhacker '34
Norwegians	25.6	66.9	7.4	Bonnevie
English	26.0	67.3	6.5	Galton
Germans	30.3	62.7	7.0	Lublien '40
Spaniards	30.3	63.2	6.5	Oloriz '08
Italians	36.4	58.4	4.7	Falco
Ainus	34.6	62.2	3.3	Koya '37
Rajputs(Jaunsar)	39.2	53.6	7.1	Monga*
Oraons	36.6	57.3	6.1	Verma
Koltas (Jaunsar)	41.0	53.6	5.4	Deol*
Rajputs (Kulu)	48.3	50.6	1.0	Datta*
Rajis	46.3	52.5	1.0	Tiwari
Bhotias	50.7	46.9	2.2	Tiwari
Santals	50.47	49.05	0.47	Biswas
Javanese	34.6	64.1	1.3	Abel '40
Formosans	36.4	58.9	4.8	Kubo '28
Red Indians	42.0	55.5	2.3	Cummins '30
Eskimos	72.2	26.9	0.8	Abel
Sumatrans	45.1	53.1	1.7	Kleiweg de Zwaan
Japanese	45.1	52.7	1.8	Kubo
Koreans	48.1	49.8	2.1	Tanaka
Chinese	50.6	47.6	1.4	Kubo '18
Australians	77.6	22.1	0.2	Cummins and Setzler

From the above table, a clear difference is evident in the frequency of the appearance of three basic

*Unpublished data

pattern types in the different races. The European Whites are characterized by a lesser percentage of whorls and more of loops and arches. The Negroes exhibit even a lesser frequency of whorls and consequently possess more loops and arches than the Europeans. The Mongoloids in East Asia are on the other extreme against the Europeans in the percentage of whorls, loops and arches. They show a much greater frequency of whorls and very few arches; the frequency reaching highest among the Eskimos who are reported to possess 72.2% of whorls and only 0.8% arches, the rest being loops. The finger prints of the Australian aborigines (Cummins and Setzler) have revealed the greatest whorl percentage i.e., 77.6% reported so far.

The Ainus of Japan and Formosans are, however, an exception to this generalization, as they exhibit a very close resemblance to the European Caucasoids in the pattern type frequency.

The people of India belonging to so very diverse and heterogenous ethnic types, show great variations in the percentage of whorls, loops and arches; which sometimes place them with the whites and sometimes with the Mongoloids. The Oraons, Rajputs (Jaunsar) and Punjabis come nearer to whites of Europe, whereas the Bhotias, Rajis and Rajputs of Kulu exhibit Mongoloid affinities.

In this respect the Santals are strikingly similar to the Bhotias and Rajis of the Sub-Himalayan region and also show a close proximity to the Chinese in the occurrence of the whorls, loops and arches.

TABLE III
Frequencies of Pattern types in %

	Index of Pattern Intensity	Dankmeijer's Index	Furuhashi's Index	Material	Investigator
Bushman	9.87	108.6	21.8	32	Weniger '36
Pygmies	10.16	90.1	23.4	886	Abel '40
Hottentot	11.35	27.4	24.3	50	Fleischhacker '34
Negroes (Congo)	11.62	28.3	31.8	357	Abel '40
Norwegians	11.83	28.89	38.2	24518	Bonnevie
Dutch	11.84	29.38	39.6	2222	Dankmeijer '34
English	11.93	25.0	38.6	500	Galton
Danes	12.13	18.12	45.9	101511	Bugge '32
Portuguese	12.29	15.69	40.1	5000	de Pina '36
Spaniards	12.37	21.45	47.9	10000	Oloriz '08
German	12.33	23.10	48.32	408	Luffeu '40
Hungarian	12.73	15.47	51.5	833	Bonnevie '29
Ainus	12.88	9.12	48.77	55	Hasebe '18
Italian	13.14	12.94	62.3	2129	Falco '08
Sikhs (Punjab)	12.59	22.22	56.1	100	Singh
Oraons	13.05	16.6	63.8	177	Verma

Rajputs (Jaunsar)	13.20	18.11	73.11	80	Singh
Koltas (Jaunsar)	13.56	13.17	76.4	80	Deol
Gujars	13.80	6.58	73.2	30	Massey
Indians	14.03	5.29	76.9	50	Biswas
Rajis	14.51	2.1	88.1	60	Tiwari
Rajputs (Kulu)	14.72	2.19	95.4	48	Datta
Bhotias	14.83	4.3	108.1	36	Tiwari
Santals	14.99	0.93	102.89	...	Biswas
Javense	13.31	7.52	58.56	1000	Dankneijer '38
Formosans	13.17	13.18	61.8	52	Kubo '28
Red Indians	13.95	5.47	75.4	35	Cummins '30
Eskimos	13.91	8.23	78.55	145	Cummins and Hansen
Swatrans	14.33	3.76	84.9	500	de Zwaan '08
Japanese	14.29	3.99	85.57	700	Kubo
Koreans	14.60	4.36	96.58	2677	Tanaka
Chinese	14.88	2.76	106.30	300	Kubo '18
Australian Aborigines.	17.73	0.25	305.22	84	Cummins and Setzler '51

The above table displays the Pattern Intensity Index (Cummins & Steggerda '35), the Arch/whorl Index of Dankmeijer '34 and the Whorl/Loop Index of Furuhashi '27.

Since the frequencies of the three pattern types vary greatly in different races, the index of pattern intensity, which gives a measure of the complexity of the patterns as a whole, could be utilized for comparison with other races to assess the racial position of a particular ethnic group. The whorls, loops and arches are assigned the values 2, 1 and 0 respectively, (depending upon the number of deltas of the pattern type).

In the populations worked upon so far this index varies from about 10 among the Bushmen to the value as high as 17.73 among the Australian aborigines thus exhibiting an abundance of whorls and in frequency of arches. The mean index of pattern intensity ranges from 9.87 to 11.62 among the Negroes; the Europeans varying from 11.83 or roughly 12 to 13.14 as among Italians and the Mongoloids ranking at the top with the index as high as 15.17.

The Santals lie very close to the Bhotias, Rajputs (Kulu) and Rajis of Almora, the people of Mongoloid affinities.

The Dankmeijer's Arch-Whorl Index tabulated above also shows a clear demarcation in the different peoples of the world. Dankmeijer ascribes the low index to the Mongoloids (below 10) and more than 10 to the Caucasoids. This index calculated above shows the highest value among the Negroes, reaching highest (108.6) among the Bushmen.

Among the Indians the value of this index varies between 2.1 (Rajis) and 16.6 among the Oraons. The Santals with an index of 0.93 fall in the Mongolian group.

Regarding the Whorl/Loop index (Furubata), the Negroes have the least value ranging from 21.8 among Bushmen to 31.8 among Negroes of Congo. The Europeans have a higher value than the Negroes, which increases from Northern to Southern side, with the increase of whorls and decrease of loops—the indices range from 38.2 to 62.3.

The Mongoloids, however, possess the highest index, the Chinese having the main index of 110.9. The Eskimos with a value of 268.4 rank the highest in the indices of the races so far reported.

The Santals fall in the range of the Mongoloids and come very near to the Bhotias, Rajputs (Kulu) and Rajis, of India who have some Mongoloid characters.

TABLE IV.

The Frequencies of Zygotes of v, V; r, R & u, U genes in various races.

Races	vv	Vv	VV	rr	Rr	RR	uu	Uu	UU	Author
Pygmies	6.0	39.0	55.0	9.0	42.0	49.0	27.0	59.0	14.0	Abel'38
Bushmen	3.7	48.1	48.1	0.0	50.0	50.0	8.3	54.2	37.5	Weninger'36
Norwegians	37.0	50.5	12.5	2.3	38.4	59.3	17.0	53.5	29.5	Bonnevie
Germans	42.2	48.2	10.0	8.0	36.0	54.0	24.0	53.0	21.0	Abel
Austrians	46.1	43.9	10.0	1.0	37.1	61.6	18.6	51.0	30.4	Geyer
Italians	46.0	42.8	11.2	6.6	36.2	57.2	21.0	50.7	28.3	Abel'38
Rajputs (Jaunsar)	30.0	55.0	15.0	5.0	45.0	50.0	16.0	57.5	26.2	Singh
Orsons	42.8	46.3	11.9	8.5	57.1	33.9	19.2	55.4	24.9	Verma
Rajputs (Kulu)	47.9	43.7	8.3	8.3	52.0	39.5	16.8	62.4	20.8	Datta
Rajis	56.6	38.3	5.0	10.0	61.6	28.3	5.0	60.0	35.0	Tiwari
Bhotias	66.2	27.9	5.8	8.1	52.4	39.6	17.0	54.5	27.0	Tiwari
Santals	66.6	28.5	4.7	9.5	38.0	52.3	14.2	66.6	19.0	Blawas
Formosans	47.8	40.0	12.3	5.5	50.3	44.3	10.8	58.8	30.5	Oluwa
Chileans	47.8	35.8	16.4	5.5	33.4	61.1	12.4	52.0	35.6	Schaeuble
Chinese	74.2	21.4	4.2	2.8	44.2	52.8	14.2	54.2	31.4	Abel
Eskimos	93.4	1.5	0.0	25.4	42.3	32.2	18.3	57.9	23.4	Abel'34

From the table given above, depicting the frequencies of the Zygotes for general epidermal thickness (factors, v and V), the radial and the ulnar cushioning (r, R & u, U) of the various races, it is observed that the zygote VV is most frequent among the Negroes and goes on decreasing among the Caucasoids, Formosans and Indians reaching the minimum among the Mongoloids and particularly the Eskimos (Abel). The factors for radial and ulnar cushioning display less variation in the various races.

As regards the general epidermal thickness, the Santals, Bhotias and Rajis come very near with 66.6%, 66.2% and 56.6% frequencies respectively for the zygote

(vv), 28.5%, 27.9 % and 38.3% frequencies respectively for the heterozygote (Vv). The zygote for thick epidermis (VV), of Santals has a frequency very near the Bhotias, Rajis and Chinese.

For Radial cushioning, again, the zygote (vv) places Santals with the Mongoloid people. But the zygote Vv and VV group them with the European White. The Ulnar Cushioning brings the Santals very near to the Bhotias and Rajputs of Kulu who have some Mongoloid strain in them. The Chinese, too, show a resemblance to the Santals in this respect.

TABLE V.

The frequencies of genes v, V; r, R; u and U in various races.

Races	v	V	r	R	u	U	Author.
Pygmies	25.5	74.5	30.0	70.0	56.5	43.5	Abel '38
Bushman	27.7	72.1	26.0	75.0	35.4	64.6	Weninger '36
Norwegians	62.2	37.7	21.5	78.5	43.7	56.2	Boonnevie
Germans	66.3	34.1	26.0	72.0	50.5	47.5	Abel
Austrians	68.0	31.9	19.6	70.3	44.1	55.9	Geyer
Italians	67.4	32.6	24.7	75.3	46.3	53.6	Abel'38
Rajputs (Jaunsar)	57.5	42.5	27.5	72.5	44.9	54.6	Singh
Orsons	65.9	34.0	37.0	62.4	46.9	52.6	Verma
Rajputs (Kulu)	69.7	30.2	34.3	65.6	47.9	52.0	Datta
Rajis	75.7	24.1	40.8	59.1	35.0	65.0	Tiwari
Bhotias	80.1	19.7	34.3	65.8	44.2	55.1	Tiwari
Santals	80.9	19.0	28.5	71.4	47.6	52.3	Biswas
Formosans	67.8	32.6	30.6	69.4	40.2	59.8	Okuwa
Chileans	65.7	34.3	22.2	77.8	38.4	61.6	Schaenble
Chinese	84.9	14.9	24.9	74.9	41.3	58.5	Abel
Eskimos	98.5	0.5	48.6	53.3	46.5	51.5	Abel'33

By considering the above table for the gene frequencies of various races of the world, there is seen

characteristic homogeneity among the Santals, the Bhotias, the Rajis, the Rajputs of Kulu valley and the Chinese.

The dominant gene V for general thickness of the epidermis, goes on decreasing from the Negroes, through the Caucasoids to the Mongoloids where it attains the minimum value. The Santal with a value of 19.0 comes very near to the Bhotias (19.7), Rajis (24.1) and Chinese (14.9). The gene (v) also remains in the same range for the Santals, Bhotias, Rajis and Chinese. For radial cushioning the Santals are very near the Rajputs of Jaunsar and the Germans, showing no Mongoloid affinities. But the genes for Ulnar cushioning categorize the Santals with the Bhotias, Rajputs of Kulu and the Eskimos.

ABO BLOOD GROUPS AMONG THE SANTALS.

The following pages dealing with serological data on various proto-Australoid and Mongoloid tribes already published by various authors have been incorporated and analysed in the present work. The author, however regrets that during the course of his field investigations it was not possible to collect any serological data.

TABLE I
Phenotype and Genotype Frequencies of the Santals composed with other Allied Ethnic Categories :

Ethnic Category	Phenotype Frequency				Genotype Frequency				Investigator
	No.	O	A	B	AB	p	q	r	
1. (a) Santal	407	31.70	21.38	35.63	11.30	.166	.258	.563	Sarkar and Sen
(b) Santal	339	33.04	20.94	34.81	11.21	.160	.240	.579	Sarkar
(c) Santal	68	25.00	23.53	39.71	11.76	...	...	...	Sarkar and Sen
2. Hill Male	242	41.32	24.79	27.27	6.61	.170	.185	.643	Sarkar and Sen
3. Plains Male	109	39.45	22.02	30.28	8.26	.156	.207	.628	Sarkar and Sen
4. Malpaharia	58	31.03	24.12	31.03	13.79	.186	.231	.557	Sarkar and Sen
5. Birjia	129	10.85	17.05	61.24	10.86	.198	.519	.329	Sarkar
6. Birhor	39	20.51	17.94	51.30	10.25	...	...	...	Sarkar
7. Birhor	102	31.37	35.29	23.53	9.80	...	...	...	Majumdar
8. Korku	140	20.00	28.57	37.86	21.05	.250	.313	.447	Macfarlane
9. Maria Gond	123	28.50	26.00	34.10	11.40	.204	.257	.534	Macfarlane
10. Munda	130	35.38	29.23	28.46	6.92	.219	.214	.577	Macfarlane
11. Ho	186	34.05	31.72	27.96	5.38	...	...	...	Majumdar
12. Lepcha	83	30.30	36.40	27.30	6.06	.241	.183	.550	Macfarlane

Ethnic Category	Phenotype Frequency						Genotype Frequency		Investigator
	No.	O	A	B	AB	P	q	r	
13. Bhotia (mixed with Lepchas etc).	85	36.47	27.07	21.17	15.29	.241	.203	.604	Macfarlane
14. Bhotia (born in Central Tibet)	80	38.75	36.25	20.00	5.00	.234	.134	.622	Macfarlane
15. Bhotias (Almora)	144	18.06	15.27	50.69	15.97	.152	.404	.425	Tiwari
16. (a) U.P. Chamars	151	36.30	18.70	39.30	5.70	.131	.259	.609	Majumdar
(b) U.P. Doms (Hill)	125	36.00	20.00	33.80	10.20	.163	.249	.587	Majumdar
17. Khasa	200	35.17	29.57	29.57	5.89	...	...	...	Macfarlane
18. (a) Khasa Brahmins	102	29.80	32.90	31.00	6.30	.246	.234	.546	Majumdar
(b) Khasa Rajput	118	33.80	31.70	26.20	8.30	.228	.193	.581	Majumdar
(c) Artisan Castes	126	28.10	22.40	40.10	9.40	.180	.295	.530	Majumdar
19. (a) Kumaoni Brahman	108	25.92	27.78	31.48	14.15	.224	.249	.509	Tiwari
(b) Kumaoni Rajput	124	29.03	24.19	33.87	12.90	.191	.254	.539	Tiwari
(c) Kumaoni Doms	74	24.32	27.03	40.54	8.11	.224	.312	.493	Tiwari
20. (a) Kulu Brahman	37	43.24	21.62	24.32	10.82	.147	.164	.658	Sastry (Unpublished)
(b) Kulu Rajput	92	17.39	36.95	34.78	10.87	.320	.305	.415	Sastry (Unpublished)
(c) Kulu Artisan	24	25.00	29.17	29.17	16.66	.236	.236	.500	Sastry (Unpublished)
21. Tharu	241	27.10	17.00	37.50	18.40	.144	.284	.520	Mazumdar (Frequencies calculated by Tiwari)

Ethnic Category	Phenotype Frequency					Genotype Frequency			Investigator
	No.	O	A	B	AB	p	q	r	
22. Raji	80	25.25	21.25	42.50	10.00	.177	.317	.512	Tiwari
23. Tibetan	150	42.00	20.00	30.67	7.33	.147	.212	.641	Buchi
24. Hindus (Mixed Group)	1000	31.30	19.00	41.20	8.50	.149	.291	.559	Hirschfeld
E.I. Archipelago									
25. Buginese (Celebes)	217	34.6	30.4	27.6	7.4	.218	.200	.589	Lehman
26. Macassar (")	195	28.7	29.7	30.8	10.8	.228	.234	.536	Lehman
27. Ambom	1471	55.9	20.9	20.9	2.3	.128	.128	.749	Bijlmer
28. Javanese	1346	39.9	25.7	29.0	5.4	.178	.198	.632	Bais and Verhoef

Sources:—(a) The Eastern Anthropologist, Vol. I No. 1 (1947). (b) Bulletin of the Department of Anthropology Vol. I No. 1 (1952). (c) The Anthropologist, Vol. 1 No. 1 (1954). (d) The Aboriginal Races of India by S.S. Sarkar (1954). (e) The Fortunes of Primitive Tribes by D.N. Majumdar (1944). (f) Serological Study of the people of Manali (Kulu) by D.B. Sastry (Delhi University Field Expedition Report, Unpublished). (g) Buchi, E.C. (1955): Blood Groups of Tibetans; Bulletin the Department of Anthropology (India), Vol. 1 No. 2 p. 73.

From the above table it appears that in the distribution of genes p, q and r the Santals fall closest to the proto-Australoids of India like the Hill Maler, Maria Gond, Malpabaria, Munda, on the one hand, to the southern Mongoloids like the Bhotia, Tibetan and Lepcha, and to the "partial" or mixed Mongoloids like the Tharus Rajis, Kumaoni Rajput etc. on the other. Because of the paucity of the data in most of the series represented in the table, it will be appropriate to say that the gene frequencies should be used cautiously. A very striking fact is the high incidence of group B among the castes of Northern India (particularly the 'exterior castes') which in combination with the strong doses of both the two agglutinogens is a characteristic feature of the Mundari and Monkhmer people¹.

The foregoing account is also supported by the dermatoglyphic and somatometric analysis and as such it is highly appropriate to suggest that the Santals who are mainly proto-Australoids also show certain Mongoloid affinities on ethnic scales which in my opinion should be thoroughly investigated in Central India.

It is interesting in this connection to note Bodding's remarks regarding the Mongoloid affinity of the Santals. He states, 'The theory of Mongolian descent is not tenable, but there cannot be any doubt that Mongoloid blood has been introduced, either by the Santals taking Mongolian wives, or the Santal women having illegitimate children by Mongolian men'. He further remarks,

¹Sarkar S.S. Macfarlane (E.W.E.), Blood Groups in India, American Journal of Physical Anthropology Vol. 28, (1941).

"other types may be found, but too few to be taken into account. All this proves mixture of blood at some time or other. What I would specially draw attention to in this connection, is the Mongoloid type, and types resembling what is found in Assam, Burma and further on"².

²Bengal District Gazetteers—Santal Parganas—by L.S.S.O.*
Malley (1910), pp. 94 and 101.

CHAPTER VII

Culture Contact

In the concluding chapter I would like to assess the effect of the impact of alien cultures on the life and customs of the Santals of Santal Parganas.

The Santals according to O'Malley¹ came from Birbhum and first settled in the Santal Parganas between 1790 and 1810. Outside Santal Parganas the Santals had contact with the Hindus but this contact was not very pleasant. They were oppressed by the Zamindars and Mahajans to such an extent that even now they call such non-Santals as "Diku" (those who trouble them). In the Santal Parganas also they were oppressed by the Zamindars and Mahajans, and when this oppression was unbearable in 1855 they became rebellious. After the rebellion the Government declared it as a restricted area. No body without the permission could enter the area. From this it appears that the contact of the Santals with the Hindus in the Santal Parganas in the beginning was not cordial. Naturally the Santals at that time could not have borrowed much culturally from the Hindus. They rather tried to stick to their old customs which would preserve their entity and maintain unity in their rank.

Alien Religious Movements and their effect on the Santal religion : From the earliest records it appears that not much Hindu influence operated in the Santal Parganas to convert them, except for the Kharwar

1. Bengal District Gazetteers (Santal Parganas).

movement which had some tinge of Hinduism. This movement was started in 1871. The leader of this movement was known as Bhagrit of Taldiha and a title of '*babaji*' was added to his name. The word '*babaji*' is a Hindu word and so it seems that it was taken from the Hindus. Later on he was arrested and imprisoned and for the time being this movement was suppressed. Again in 1880 it was revived by one Dubia Gosain who came from the vicinity of Deoghar. His activities were more pro-Hindu. Several Hindu practices were introduced by this movement and one distinguishing feature was the worship of the '*babaji*' in the manner of reverence paid to the Sanyasis by the Hindus. The religious side of the movement had a colouring of Hinduism. The '*babaji*' smeared his body with ashes, took ganja and kept long hair and worshipped Mahadeo (Siva).

It is probable that due to this Kharwar movement the Santals have introduced some Hindu deities—Kalimata, Lakhmi mai, (goddess of wealth) Parvati, Mahadeo etc. in their pantheon of *Bongas*. The Santals have belief in Rama and Krishna, the Hindu Avatars.

The word Thakur is sometimes used by them in place of their High God Cando. The word Thakur is of Sanskrit origin and the Hindus use this name for gods in general.

Some of the festivals of the Santals have Hindu counter parts. The Pata Parab of the Santals is the imitation of the Hindu festival "Charak Puja". In this puja the Hindus worship Siva (Mahadeo). The Santal Sankrat festival is equivalent to the Hindu Pous

Pabban. The Santals observe this festival on the last day of the month of Pous, just like the Hindus do.

Besides this, the Santals take part in the Durga Puja festival of the Hindus. They wear new clothes and attend the Puja with wives and children and enjoy the fun for five days like the Hindus.

There exists a great controversy about the institution of *Ojhaism* among the Santals. There are possibilities of its having been borrowed from the Hindus by the Santals since the practice of this form of magico-religious ritual has much in common between the two groups, namely the Santals and the Hindus. Rev. Bodding also points out the probability of the borrowing of the principles for *Ojhaism* and much of its ritual from the Hindus though he does not thereby exclude completely the converse. In part substantiation of the above contention, which however is opposed by some authors on the subject, may be cited the striking similarity between the names and functions of the Santal and Hindu *Ojhas*, pointing to perhaps a strong interconnection between the two groups in respect of *Ojhaism*. The very name *Ojha* is Hindi and is adopted by the Santals from Hindi speaking people. Further it is interesting to note that *Ojha* is a caste name among the Hindu Brahmins, and in the early days the occupation of this caste group was mainly soothsaying, foretelling and astrology and curing snake bites etc. The concentration of such groups is in Bihar and Uttar Pradesh. It may therefore be considered very probable that the Santals have borrowed from the Hindus the essentials of *Ojhaism*, though certain indigenous

elements have doubtless modified its practice among the Santals

Christian influence. In 1862 the Church missionary society started work in the Godda, Pakur and Rajmahal subdivisions and they built a colony for their converts in the Western Duars (in Godda). The Scandinavian Mission started their missionary activities in the Dumka subdivision in 1867. In 1884 the American Methodist Episcopal Mission started work in the Pakur subdivision. Other missions were the Christian Women's Board of Missions, a Wesleyen mission, which started work at Deoghar subdivision.

Thus it can be seen that after the Santal rebellion several Christian missions started their activities in and outside the Santal Parganas. It is stated in the Seventy fifth annual report of the Santal mission of Northern Churches (1941) that 25,000 Santals were converted. The record of missionaries has been a very creditable one in some respects, particularly in regard to education, sanitation, medical care and general raising of the standard of living, but in context of religion the missionary zeal has been somewhat misdirected. These converts are cut off from any activity that savours of worship of tribal *Bongas*. They do not contribute in cash or in kind to the offerings associated with village festivals. They do not take part in the worship of the five deities of the Jahersthan.

The converted Santals and even some non-Santals refer to Adam and Eve as *Pilchu Haram* and *Pilchu Burhi* who according to the tradition of the tribal Santals are the parents of mankind and the human race

sprang from this pair. Also they correlate *Maran Buru* with 'Satan'. They believe that *Maran Buru* spoiled the first human pair and revealed to them the secret of sexual intercourse, just like the Christian who believe that Satan is responsible for the downfall of the first pair, Adam and Eve. The converted Santals observe the Christmas Day and Good Friday. Harvest Festivals are celebrated by decorating Churches and offering prayers.

Effect on the Social Culture of the Santals due to alien influence. The social system of the Santal is communistic in nature. In any festival, or ceremony the whole village takes part. This cohesion is now losing its strength. For this, missionary activities are to a certain extent responsible. The Christian converts are being cut off from social intercourse. Sometime a christian family is put to great inconvenience. This is particularly the case when a death occurs for the non-christians will have nothing whatever to do with the disposal of the dead body. The non-christian method of disposing the dead body is by cremation whereas the converted Santals practise burial and subsequent mourning and funeral ceremonies according to the Christian way. There is no bar to marrying more than one wife in Santal tribal custom. But this practice is strictly prohibited among Christian Santals as Christian religion strictly prohibits *bigamy*. Cross cousin marriage, and marriage with non-Santals is not tolerated by the tribal Santals but among Christian Santals, these things are not prohibited.

The marriage ceremony is held either in the Church or in the courtyards of the house of the bride's parents



Pargana

MR. SAKRAM HEMROM
and his family (*Christian*)



Assistant to the Pargana
DESH-MANJHI
(*Christian*)

and it is conducted according to the provision of the Indian Christian Marriage Act.

Material Culture. Material culture of the Santals of the Santal parganas has not much changed. They now wear cotton dhuties, shirts and gangees and the women have accepted cotton saris which are used by the Hindus. The well-to-do Christian Santals wear European dress, *i.e.* coats, pants, shirts, socks and shoes. The christian women wear Saris, blouses and petti coat according to the Hindu style.

Some of the younger men and women of the Christian community go out for employment in the towns and cities and when they come back they display their superior material culture, such as fountain pen, wristwatches and other luxury goods.

Rice beer is their important drink but the Christian missionaries make propaganda in favour of total abstinence, and the Christian Santals are gradually giving up this habit and tea is being substituted for it. Machine made cigarettes are slowly coming into use.

In the preparation of rice it seems they have copied something from the Bengali Hindus. The Santals like the Bengalis use boiled rice for their food and unboiled rice for offering to their tribal deities.

The indigenous husking machine of the Santals is mortar and pestle, but they also use husking lever (*dhenki*) in husking rice which they have copied from their Hindu neighbours.

The Santals, when they speak among themselves, use their own language. But with the 'Dikhus' in the Santal Parganas they speak in broken Hindi and

Bengali. The female members mostly cannot speak any language except their own. They learn Hindi when they come in contact with the Hindi speaking labourers in the coal mines, railway workshops or when they come in contact with the Hindu Mahajans (money lenders) and traders. Some of the Hindi and Bengali words have also been introduced in their vocabulary which can be noticed in the language of their *mantras* and *prayers*.

Vermilion is one of the most important item for marriage and in the worship of deities both for the Hindus and the Santals. Some think that the Santals have copied it from the Hindus, but it is doubtful whether it is their borrowed thing at all. Because in such important social customs as marriage and worship of tribal deities, vermillion is considered by the Santals as an essential ingredient. There is a kind of marriage in which a Santal can marry a woman simply by applying vermillion on her forehead, which shows that vermillion is the only binding source of marriage here. Such an important ingredient of culture is not usually borrowed and we can take it as a case of culture similarity. Similarly, another custom of *Garde Jawar* is prevalent both among the Santals and the Hindus. There are other similarities in their social, religious and economic structure with the Hindus, but all of them cannot be attributed to their borrowing from the Hindus. Infact, saying so, implies that the Santals had no culture of their own, which can not be true. It seems that there has been a two-way traffic of culture exchange-Hindus having borrowed some elements from the Santals and vice versa.

The Santals have many things of value in their culture. There are many elements that are well worth preservation and which have a great deal to teach the so called civilized neighbours.

The Santals have a large number of folklores and folk songs which contain many new ideas and thoughts. Their art of recreation brings a balance in their life which is lamentably absent in the civilized neighbours.

The political organisation of the Santals is worth studying. Although they have neither studied any literature on this line nor they have any written constitution yet they are extremely disciplined people and are managing their tribal affairs in a highly democratic way. The communal life of the Santal is well organised, in which everything is shared even joy and sorrow of one is the joy and sorrow of the whole community. This virtue is lacking in the so called civilized society where life is individualistic and so we find more selfishness in civilized people.

The knowledge of herbs and medicines of the Santal medicine-men is highly developed. Rev. P.O. Bodding with the help of two qualified doctors, Mrs. Bodding M.B. & Ch.B. (Edin) and Dr. B.B. Bogh, collected a large number of plants and other stuff used by the Santal medicine-men. He published the names of the plants and other stuff, the list of prescriptions and veterinary medicines in the memoirs of the Asiatic Society of Bengal in two parts.¹ Rev. Bodding men-

1. P.O. Bodding—Studies in Santal Medicine and connected folklore—Memoirs of the Asiatic Society of Bengal (Calcutta) Vol. X No. 1 p. 1-132 and No. II p. 133-426 (1927).

tioned in his introductory remarks the following, "When in January 1890 he came out to the Santals, he was from the very first brought into contact with their medicine. It did not take long to be made aware of the Santals having medical treatment and medicines of their own, and of their belief in this. They might doubt the efficacy of certain medicine; but many were affirmed to be proved, as they called it.

It was not seldom to hear them profess to be able to cure what European doctors consider hopeless. In some cases (not hopeless ones) that came to the writer's notice is also seemed to be a fact that they had applied remedies of an efficacious nature. There is just the possibility that among the many ingredients used by them some few might be found that are not known to western science as medicines".

If these medicinal ingredients be scientifically analysed and tested, something of value might be found and thereby the modern medical science may be benefited.

Above all the Santals are well known for their simplicity, honesty, straightforwardness, frankness and sincerity in thought and action. It is regrettable that these virtues of the Santals are gradually disappearing as a result of unregulated cultural change.

Thus from the above it appears that Hinduism has not brought any appreciable change in the Santal culture. Except the introduction of a few Hindu gods and goddesses no other change can be found in the Santal religion. In social sphere there is no effect. In material culture some minor changes have taken

place. It is not proper to say that the traditional culture of the Santal in the Santal Parganas has undergone transformation by coming in contact with the Hindus, whereas Christinity has affected a major change by imposing on the Santals its particular way of life. The drastic interference of the Christian missioneries on traditional culture of the Santals, has destroyed tribal solidarity and forbidden the joys, recreation feasting and romance of communal life.

In trying to solve the problem of poverty and material inadequacy, the missionary has confused the issue. To believe that material prosperity is only co-existent with a change of religion and not with an indigenous religious pattern, is to betray dogmatic creed. Thus from a concern for the plight of the body, the missionary became a champion of the fate of the soul of these people. Two decisive drawbacks are manifest in the pursuit of such an ideology. Firstly, the tribal Santals tend to confuse the casual material prosperity of the missionary converts, as the direct fruits of change of religion, and quite often such gains are incongruous to them in context of their surroundings. Thus they are dubious of accepting a new religion, even formally, since its gains do not suit them. Secondly, they ill-comprehend the philosophy of an alien creed, and at best becomes a poor convert, clinging to the mere fringe of the structure of new ideology. In this respect they are worse off than their non-converted, who at least have the full solace of their belief in their own tribal gods and who are convicted of their power and interest in them.

Further, most of Santals who actively seek the new folds, are either those who are feeling from persecution of their fellow-men for irregularities like forbidden marriages etc. or those who are in dire economic distress, and who hope to gain employment and protection thereby. This creates an unhealthy rivalry among the groups and upsets the balance of their tribal society. Though there is no formal out-casting or persecution of the converted tribals, there yet exists a strained atmosphere created by the elimination of the common platform of tribals activity. Participation by converts in all ceremonials and rituals on marriage, birth, death etc. is not possible, and this is creating a separative tendency, tending the promotion of division among the group on economic, cultural and social levels. The tribal solidarity is broken and the group as a whole suffers from such fission.

BIBLIOGRAPHY

- Archer, Mildred—"The Folktale in Santal Society",
Man in India, December, 1944, 224-32.
- Archer, W.G. —"The Illegitimate Child in Santal
Society", Man in India, September,
1944, pp. 154-169.
- "More Santal Songs", Man in India,
September, 1944 pp. 141-4.
- "The Forcible Marriage", Man in
India, March, 1945, pp. 29-42.
- "Santal Rebellion Songs", Man in
India, December, 1945.
- "Santal Transplantation Songs", Man
in India, March, 1946, pp. 6-7.
- "Ritual Friendship in Santal Society",
Man in India, March, 1947, pp. 57-60.
- "The Santal Treatment of Witch-
craft", Man in India, June 1947,
pp. 103-21.
- Bodding, P.O. —"On Taboos and Customs connected
therewith amongst the Santals",
Journal of the Asiatic Society of
Bengal, Vol. LXVII, pt. III, No. I,
1898, pp. 1-24.
- "On the Different kinds of Salutation
used by the Santal", Journal of
Asiatic Society of Bengal, Vol. 67,
pt. 3, 1898, pp. 35-43.

Bodding, P.O. — "Ancient Stone Implements in the Santal Parganas," *Journal of the Asiatic Society of Bengal*, Vol. LXX, pt. III, No. I, 1901, pp. 17-22.

— "Shoulder-headed and other forms of stone implements in the Santal Parganas", *Journal of the Asiatic Society of Bengal*, Vol. LXXIII, pt. III, No. 2, 1904, pp. 27-31.

— *A Santal Dictionary*, Oslo, 1929.

— "Mongolian Race Marks Amongst the Santals", *Journal of the Asiatic Society of Bengal*, Vol. LXXIII, pt. III, No. 2, 1904, p. 26.

— "Some Remarks on the Position of Women Among the Santals", *Journal of Bihar and Orissa Research Society*, Vol. I pt. II, 1915, pp. 213-28.

— "The Kharwar Movement Among the Santals", *Man in India*, September, 1921, pp. 223-32.

— "The meaning of the Word "Buru" and "Bonga" in Santali", *Journal of Bihar and Orissa Research Society*, Vol. XII, pt. I, 1926, pp. 63-77.

— "Further Notes on the Burus and the Bongas", *Journal of Bihar and Orissa Research Society*, Vol. XII, pt. II, 1926, pp. 286-88.

- Bodding, P.O. —“The Santals and Disease Studies in Santal Medicine and Connected Folklore, pt. I, Memoirs of the Asiatic Society of Bengal, Vol. X, No. 1, Calcutta, 1925.
- “Santal Medicine, Studies in Santal Medicine and Connected Folklore”, pt. II, Memoirs of the Asiatic Society of Bengal, Vol. X, No. 2, Calcutta, 1927.
- “How the Santals Live, Studies in Santal Medicine and Connected Folklore”, pt. III, Memoirs of the Royal Asiatic Society of Bengal, Vol. X, No. 3, Calcutta, 1940.
- “Notes on the Santals”, Census of India, 1931, Vol. I. pt. III, Sec. B.
- Bompass, C.H. —Folklore of the Santal Parganas, London, 1909.
- Campbell, A. —“The Traditions of the Santals”, Journal of Bihar and Orissa Research Society, Vol. II, pt. I, 1916, pp. 15-29.
- “Santal Legends”, Journal of Bihar and Orissa Research Society, Vol. II, 1916, pp. 191-200.
- “Superstitions of the Santals”. Journal of Bihar and Orissa Research Society, Vol. I, pt. II, 1915, pp. 213-28.
- “Rules of Succession and Partition of Property as observed by the Santals”, Journal of Bihar and Orissa Research Society, Vol. I, 1915.

- Campbell, A. —“Santal Marriage Customs”, *Journal of Bihar and Orissa Research Society*, Vol. II, pt. III, 1916, pp. 304-37.
- “Death and Cremation Ceremonies Among the Santals”, *Journal of Bihar and Orissa Research Society*, Vol. II, pt. IV, 1916, pp. 449-56.
- “Santal Folktales, Pokhuria, 1891.
- Campbell, J. —“Ethnology of India”, *Journal of the Asiatic Society of Bengal*, pt. II, 1866, Special Number, Ethnology.
- Census of India, 1931.
- Chatterjee, B.K. —“The Somatic Characters and Racial
and Affinities of the Santals of the Santal
Kumar, G.D. Parganas, *J.A.S.B. (Science)* Vol. XVIII No. I. 1952.
- Chattopadhyaya, —Report on Santals in Bengal, Calcutta
K.P. University Press, 1947.
- Chowdhury Uma, —“Marriage Customs of the Santals”
Bulletin of the Department of
Anthropology” Vol. I, No. I, January,
1952, pp. 86-116.
- Craven, C.H. —“Traces of Fraternal Polyandry among
and the Santals”, *Journal of the Asiatic
Skrefsrud, L.O. Society of Bengal*, Vol. LXXI (1903),
pp. 88-90.
- Culshaw, W.J. —“Early Records Concerning the
Santals”, *Man in India*, September,
1945.

- Archer, W.G. —“The Santal Rebellion.” *Man in India*, December, 1945.
—*Tribal Heritage*, London, 1949.
- Dalton, E.T. —*Descriptive Ethnology of Bengal*, Calcutta, 1872.
- Datta, K.K. —*The Santal Insurrection of 1855-7*, Calcutta, 1940.
- Datta Majumdar—*The Santal—A Study in Culture-Nabendu Change*.
- Gausdal, G. —“The Khut System of the Santals”, *Journal of Bihar and Orissa Research Society*, Vol. XXVIII, pt. IV, 1942, pp. 431-9.
- Haram, K. —*Traditions and Institutions of the Santals*, Benagoria, 1887.
- McPherson, H. —*Final Report on the Survey and Settlement Operations in the District Santal Parganas, 1898-1907*, Calcutta 1909.
- Majumdar, D.N.—*A Tribe in Transition*. London, 1937.
—*The Affairs of Tribe*, 1950.
- Man, E.G. —*Santhalia and Sonthals*, Calcutta 1867.
- Mitra, K. —“The Originals and Parallels of the Stories in Mr. Bompas’ Folklore of the Santal Parganas”, *Journal of Bihar and Orissa Research Society*, Vol. XII, pt. IV, 1926, pp. 560-84.
- O’Malley, L.S.S.—*Bengal District Gazetteers—Santals Parganas*, Calcutta 1910.

- Risley, H.H. —Tribes and Castes of Bengal, Vol. II, Calcutta 1891, p. 230.
 —The People of India, Second Edition, London, 1915.
- Roy, S.C. —The Mundas and Their Country.
 —The Birhors.
 —The Oraons.
 —The Oraon Religion and Custom.
- Roy, R.C. —The Kharias, Vol. I and II.
- Roy, S.N. —"The Conversion of Santal to Hinduism", Journal of Bihar and Orissa Research Society, Vol. II (1916), pp. 87-8.
- S.S. Sarkar. —The Aboriginal Races of India.
- Sarkar, S.S. —"Further Blood Group Investigations
 and in Santal Parganas—Bulletin of the
 Sen, D.K. Department of Anthropology Vol. I
 No. I, January, 1952, pp. 8-13.
- Yule, Sir George—"Report on the Sonthal Pergunnahs for 1858", in Santhalia and the Sonthals by E.G. Man.

INDEX

- Abel, 206.
Abors, 102.
Adoption, 93.
Adwa Chawla, 123, 127, 129.
Agriculture, 19.
Ahiri Pipri, 4.
Ainus, 201, 204.
Akhra-Rara, 124.
Altitudinal Index, 163, 164.
Amawasa, 118.
Amlas, 7.
Andamanese, 116.
Anthropometric analysis,
158.
Arnam Kethe, 102.
Arar, 22, 23.
Arches, 199, 200, 204.
Arrow, 31, 32.
Aryan, 1, 4.
Ashan tree, 15.
Assam, 4, 5, 102, 109, 213.
Apum, 55.
Australian, 51, 106, 201, 204.
Australoids, 208, 212; proto-
australoid, 212.
Austrie group, 51.
Ayo, 55.
- B
- Badna festival, 31.
Bahaparab, 141.
Bakat Bahu, 61.
Bakhar, 40.
Banglaorak, 17.
Bapla, 73.
Bariatako, 78, 80, 81, 84.
Battle-axe, 33, 34.
Bedia, 114.
Belpalta, 6.
Benaras, 3.
Bhagalpur, 1, 6, 7.
Bhagnadibi, 9.
Bhagrit, 215.
Bhandkar, 156.
Bhitar, 18.
Bhuiyas, 6.
Bhut-pret, 110.
Bihar, 4, 6.
Birbhoom, 6, 7, 214.
Birhors, 109, 110, 116, 117.
Biri-Bela, 102.
Birth 89.
Bitlaha, 94.
Bi-zygomatic breadth,
177, 178.
Blood groups, 209.
Bodding. Revd. P.O., 4, 19,
24, 36, 57, 68, 93, 103,
111, 113, 121, 125, 221.
Body Build, 177.
Bogh, B.B., 221.
Bokrabandh, 30.
Bolt arrow, 32.
Bompass, 102, 116, 117, 119.

Bongas, 14, 16, 29, 35, 42,
104, 106, 107, 115, 119,
121, 123, 124, 125, 127,
128 to 137, 141, 142, 145,
147, 215, 217.

Boro, 102.

Buddhism, 1.

Bulan, 131.

Bulmayam, 129, 130.

Bura, 102.

Burhait, 9.

Burma. 4, 5.

Bushmen, 204.

Breadth-height index, 162,
163.

Brewing, 41.

Bride-price, 78, 83.

C

Campbell 3, 69, 93.

Cando, 215.

Caucasoid, 204, 206.

Cephalic index, 169, 160, 173.

Ceremonies and festivals, 101.

Chacho-Chhatiar, 91, 93.

Chai-Champa, 4.

Chandan, 99.

Chando Bonga, 102, 103.

Charak Pooja, 215.

Chhota Nagpur, 3, 5, 102.

Chin, 176.

Chinese, 114, 207, 208,

Christian mission, 217, 218,
219, 223.

Churin Bhut, 100.

Churning, 39.

Clements, 111, 113, 115.

Clodd, 101.

Communal, 35, 108.

Craven, 55.

Cultural strata, 101.

Culture contact, 214.

Cummins, 201, 204.

D

Dalton, 2, 102,

Damin, 7, 8, 93, 103.

Daminikoh, 1, 7, 12, 16, 108.

Dancing, 47, 48.

Dandit, 25.

Dangra Karha, 24.

Dankmeijer, 204.

Daroga, 7.

Dehiri-hunting, 19, 29, 31,
110, 144, 145.

Deoghar, 11.

Dermatoglyphics, 188.

Desae-Parab, 112.

Desae daran, 126.

Deshmanjhi, 96, 153, 154.

Dhenki, 18, 22, 27.

Dibi Mai 124.

Dikus, 214, 219.

Disposal of the dead, 96.

Divorce, 16, 88.

Doja Handi, 41.

Dom, 49.

Domesticated 42.

Dravidians, 2, 4, 51, 101,
150.

Dress, 43.

Dubia Gosain, 215.

Dula-Deb, 102.

Dumka, 1, 6, 7, 12, 16, 76,
95, 103.

Dunbar, 6, 7.

Durga pooja, 215.

E

Ear-lobe, 176.

Eickstedt, 150.

Epicanthic fold, 175.

Erok, 142.

Eskimos, 206, 208.

Exogamous, 69.

Exorcism, 121.

External Orbital Breadth,
177, 179.

Eyecolour, 75.

F

False weights, 12.

Family, 51.

Finger-prints, 199.

Fishing, 34, 35, net 34.

Fish poisoning, 35.

Folk lores, 106.

Food, 36, 37.

Fore-head, 176.

Frazer James, 102.

G

Gaduar, 30.

Games, 48, 49, 50.

Ganges, 3.

Gardi-jawae, 52, 53, 83, 84,
220.

Garos, 102.

Genotype, 209, 210, 211.

Germans, 208.

Gita, 110.

Goddet, 138, 152.

Godda, 1, 6, 7, 12, 16, 18,
122, 217.

Gonds, 102; Maria 212.

Gongo, 53.

Gorait, 76.

Gorkhas, 30.

Gosainera, 16.

Gross familie, 52.

H

Hair, 174, 175, 181, 183.

Halka, 24, 25, 26.

Hamilton, 6, 7.

Handi, 16, 40.

Handwe, 6.

Hansli, 45.

Hawaiian, 2, 51.

Hazari-Bagh, 4.

Head; length, breadth,
height 177, 178.

Height vertex, 177, 179.

Hindu, 4, 5, 52, 70, 109.

112, 214, 215, 216, 219,

220, 222, 223.

Hoe, 26.

Horisi, 23.

Hos, 2, 102, 113, 117.

House, 16.

Hunter, Sir William, 2, 6.

Hunting, 29, 30, 31, 110.

Hopen, 53.

Husking lever (Dhenki), 27.

Hypothenar, 19, 3, 195.

I

Incisor fold, 177.

Indices, 158.

Indo-Aryan, 149.

Initiation, 123.

Iris, 175.

Isi, 22, 23, 25.

J

Jaherera, 15.

Jahirsthan, 13, 15, 16, 137,
141, 142, 143, 217.

Jainism, 1.

Jamjati, 9

Jan Buru, 108, 118, 121,
132.

Janak, 1.

Janam Chatiar, 90, 92.

Jel-pitha, 36.

Jharni, 122, 125.

Jogmanjhi, 74, 79, 82, 83,
140, 151, 152.

Jomsim, 144

Joint family, 55.

Junior Levirate, 55.

K

Kabhi Jal, 35.

Kadakarha, 24.

Kadamsair, 10.

Kali Mai, 124.

Kamruguru, 108.

Kando, 103, 135.

Katikund, 103.

Karahe, 37.

Karmba, 22.

Karha, 20, 24, 26.

Karl Pearson, 179.

Karta, 129.

Katahaldih, 30.

Khajari, 36.

Khaprapitha, 37.

Kharias, 102.

Kharwar movement, 214,
215.

Khonds, 102.

Kinship terminology, 55.

Kiring jawae, 83.

Kolean Guru, 14.

Kopi, 30.

Korwas, 102.

Kudam Naike, 79, 92.

Kudi, 26.

Kukis, 102.

Kulidrupe, 13, 154, 157.

Kursis, 73.

L

Laker Dewani, 6.

Langta, 43.

Leveller, 24, 25, 26.
 Libations, 41.
 Legends, 4.
 Lips, 176.
 Loops, 194, 196, 199, 200,
 204, 205.

M

Macbeth, 111.
 Macpherson, T. S., 120.
 Magic, 107, 116, 121.
 Mag Sim, 145.
 Mahajans, 7, 8.
 Main line formula, 189, 190,
 191.
 Majhistan, 13, 14, 15, 154.
 Malaya Penisnula, 4.
 Malers, 2, 6, 102, 212.
 Mallet, 26.
 Mal-Paharias, 6, 8, 212.
 Man, E. G. 102.
 Mandwa Khunti, 79.
 Mandle, 24.
 Manjhi, 91, 92, 139, 140, 151.
 Manjhi Haram, 13, 15, 96.
 Manjhistan, 96, 97.
 Manouvere Skelic index, 171.
 Mantras, 119, 122, 126, 128,
 219.
 Maori, 52.
 Maran Buru, 15, 16, 41, 42,
 117, 118, 137, 139, 141, 218.
 Marriage, 73 to 88.
 Martin, 5, 158, 159.
 Mati 109, 110.
 Matriarchy, 54.

Maximum Hip Breadth, 177.
 Mediterranean method, 31.
 Mikirs, 102.
 Missionary, 109.
 Mirzapur, 3.
 Mohul Paharias 103, 119.
 Money lenders, 12.
 Mongoloid, 4, 5, 149, 204,
 207, 208, 212, 213.
 Mon Khemer, 212.
 Montgomery, 5.
 Morgan 51.
 Mortar and Pestle, 27.
 Muwa tree, 15, 16.
 Mundan, 212.
 Mundas, 2, 5, 109, 149, 212.
 Musical instruments, 46.

N

Naike, 108, 138, 141, 142.
 Nahel, 22.
 Nahel Deki, 23.
 Nahel Koram, 23.
 Nahel Toda, 23.
 Nahel Vohok, 23.
 Nairs, 54.
 Nasal: bridge, septum, 176;
 height, breadth, 177
 Nasion depression, 176.
 Nasal index, 160, 161, 162,
 173.
 Nakic, 24.
 Negroid, 150.
 Nij, 69.
 Non fraternal polyandry, 54.

O

- Oil press, 39.
 Ot Pitha, 37.
 Ojha, 58, 108, 109, 111, 115,
 118, 120, to 132, 214, 216.
 O'Malley, 73, 91.
 Omens, 14.
 Oraons, 2, 102, 107, 109, 110,
 116, 117, 201.
 Orbito-nasal index, 167, 168;
 Orbito-nasal curve, 177, 179.
 Ornaments, 45.
 Ote-Boram, 102.
 Out-casting, 94, 95.

P

- Paharias, 6, 19, 20.
 Pakur, 1, 12, 217.
 Palaeolithic, 150.
 Pellet bow, 32, 33.
 Palmar prints, 188.
 Palorak, 23.
 Panchayat, 154.
 Paranik, 91, 92.
 Parab, 146, 147, 152, 215.
 Pargana bonga, 15.
 Parganait, 12, 95, 96, 153,
 154.
 Paramanik, 79, 151, 152.
 Partition, 156.
 Pater Families, 53.
 Patriliney, 51.
 Pattern types, 202.
 Pacific, 2, 51.

- Permanent settlement, 6.
 Pharsi, Pen, 102.
 Phenotype, 209, 210, 211.
 Pilchu Burhi, 13, 68, 98,
 217; Haram, 13, 68, 98, 217.
 Pitha, 36.
 Plain bow, 32.
 Pleaders, 7.
 Plough, 22, 23, 24.
 Polyandry, 54, 55.
 Ponderal index, 170, 171.
 Position of women, 57.
 Pre-Aryan, 2, 51.
 Pre-Dravidian, 1, 2, 101,
 110, 113.

- Priest, 29.
 Prognathism, 176.
 Pukri, 16.
 Punjabis, 201.

R

- Radio Humeral index, 168.
 Raibar, 75, 76, 78, 79.
 Raja of Ambar, 10.
 Rajis, 201, 204, 205, 206,
 207, 208, 212.
 Rajmahal, 1, 7, 12, 217.
 Rajputs, 201, 205 to 208.
 Raksa, 24, 26.
 Ramgarh, 5.
 Ranga Mai, 124.
 Rango Ruji, 135.
 Raranic, 57, 108, 110, 112.
 Re-admission, 96.
 Relative Hip Width, 170.

Rebellion, 9, 10, 12.
 Religion, 101, 222.
 Rice beer, 40.
 Rice field, 20.
 Risley, Sir, Herbert, 3, 102.
 Rivers, 53.
 Rotok Nakic karha, 24, 26.
 Ruggery, G. 150.

S

Sada, 69, 70.
 Sadar, 153.
 Sakrat, 140.
 Sakuas, 30, 46.
 Santal Rebellion, 7.
 Saungtars, 6.
 Schmidt, Peter W., 101,
 192, 150.
 Soontars, 5.
 Septs, 62 to 68.
 Serfdom, 12.
 Serological, 209.
 Setzler, 201.
 Sexual intercourse, 74.
 Sherwill, Captain, 7.
 Sickie, 28.
 Sid, 126, 127.
 Sidatang, 119.
 Sinbonga, 19, 29.
 Sing Bonga, 102.
 Shore, Sir John, 5.
 Skerisurd, Revd; 2, 14, 55,
 102.
 Skin colour 174, 182, 183, 184.
 Sling, 33.

Smoking, 42.
 Sociological fatherhood, 54.
 Sohrae, 138, 152.
 Somatometric measurement,
 159.
 Somato-scopie, 174.
 Sorcery; 116, 121.
 Sororate, 55.
 Span, 169.
 Spinning and Weaving, 44.
 Spirit intrusion, 114, 115.
 Stature, 173.
 Steggerda, 204.
 Sula 24, 25.
 Sunder Pahari, 13.
 Supernatural, 104.
 Supra-orbital ridges, 175.
 Suria Paharias, 8.
 Sutherland, 6, 7.

T

Taboos, 104, 115.
 Tamuk, 46.
 Tamuka, 30.
 Tantric, 109.
 Tark, 123, 128.
 Taungtars, 6.
 Tea plantations, 12.
 Tejo theory, 112.
 Thakur, 102.
 Thakur Baba, 103.
 Thenar, 194, 195.
 Thrashing, 21.

Toda, 53, 54, 55.

Tonghis, 30.

Total facial index, 164, 165;
height, 178.

Totemic, 51.

Totemism, 72, 73.

Trans-plantation, 21.

Truko Muruko, 137.

Tukuc, 40.

Tulsi, 124.

Tumdak, 47.

Turukomonrako, 15.

U

Upanishadic, 101.

Upper facial index, 166, 167;
height, 177, 178.

Uti, 25.

V

Veddoid, 150.

Vedic, 101.

Village, 13.

Vindhya Hills, 3.

W

Widows, 16.

Wine, 41.

Witches, 103, 104, 114, to
118.

Witchcraft, 6, 108, 117, 118.

Ward, 6.

Whorls, 200, 204, 205.

Wilder, 190.

Z

Zalaway Hill, 103.

Zamindars, 6, 7, 8.

Zygote, 206, 207.



ERRATA

Page No.	Line	Incorrect	Correct
9	4	Bhairal	Bhairab
13	27	Satal	Santal
18	30	Dhenk	Dhenki
41	19	Mowar	Mowa
43	27	clothes	cloths
77	10	birde's	bride's
78	5	furture	future
79	7	takes	take
79	18	Maiden	maidens
115	17	enquiries	enquires
148	3	te	to
166	14	Euryne	Euryene
167	17	Possesses	possess
173	18	frequency	frequency
173	27	birdseye	bird's eye
181	6	independent	independence
183	2	independent	independence
183	9	independent	independence
183	21	independent	independence
184	12	Freguency	Frequency
192	4	end	and
208	4	thikness	thickness
212	16	suported	supported
223	31	convicted	convinced
224	2	feeling	fleeing

Col-
N 91.75

2

Archaeological Library,

Call No. 572.55411

Author— P. C. Biswas

Title— Santals of the
Santal Pargana

Borrower No.

Date of Issue

Date of Return

"A book that is shut is but a block"

CENTRAL ARCHAEOLOGICAL LIBRARY
GOVT. OF INDIA
Department of Archaeology
NEW DELHI.

Please help us to keep the book
clean and moving.